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ABSTRACT

A detailed work plan is presented for the conduct of Phase II activities, which are concerned with creating a pilot test file, conducting a test of it, evaluating the process and input of the file, and preparing the file management plan. Due to the outcomes of activities in Phase I, this plan was revised from an earlier outline. Included in the document is a review of Phase I, an overview of methodological and logistical problems, and a statement of work and technical approach; this latter section is subdivided into areas that discuss the rationale for a simulated clearinghouse, the rationale for content options, project management, and objectives and activities associated with the pilot test file. Appendices present lists of members of the Project Advisory Group and the Internal Project Advisory Committee, the Pilot Test Practice File Design, and the National Institute of Education guidelines for the pilot test. (JD)

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Revised Phase II Plan for the National Education Practice File Development Project Including: Creation; Pilot Testing; and Evaluation of a Test Practice File

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PRODUCT 1.7 1.8 (Product 1.6 Appended)

Submitted by Gregory Benson, Project Director,
as part of
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Revised Phase II Plan for the National Education Practice File Development Project Including: Creation; Pilot Testing; and Evaluation of a Test Practice File

SECTION I

Executive Summary

As projected in the original proposal submitted to NIE by BRS in the Summer of 1977, the development of files for educational practices and for human resources has proceeded at a rapid pace. This growth is accompanied by a certain number of problems usually associated with rapid expansion - fragmentation, unnecessary duplication, and incompatibility. The Education Practice File Development Project can play an important role in addressing these problems by producing a superior system which others will choose to adopt. The pilot test designs presented in this document for Phase II represent the next major step in implementing a quality system for the developing nation-wide dissemination system.

Phase I activities were addressed to the development of a design for the Practice File and for a pilot test of its operation. Using a variety of informal interviews and group discussions with educators and educational organizations, BRS identified the major options with respect to content, selection, acquisitions, and other file features. A parallel study of existing information products and services as well as a thorough review of the literature were undertaken.

Based upon this material BRS, in conjunction with a Project Advisory Committee (PAG), prepared a screened idea list for all features of the proposed new file. Following a review by the NIE Internal Advisory Committee (IAC), BRS prepared an analysis of alternatives for each feature and a suggested file design for the pilot test. Following a second review by the IAC, BRS developed a detailed file design for the pilot test, a formative and summative design for evaluating the pilot, and a detailed proposal for the conduct of Phase II activities.

As was the case with Phase I, a small number of methodological and logistical problems will need to be addressed in Phase II. New and expanded relationships will need to be established in order to ensure that such areas as acquisitions and user products and services are developed adequately. New incentives and outreach activities will need to be employed in order to establish closer ties with the practitioner community. Relationships with the existing ERIC Clearinghouse structure will need to be maintained.

Orientation and training of new users also will be an important requirement of Phase II activities. Unless information center personnel understand and can use the File, the pilot test will be inadequate. Finally, the pilot test will require a rigorous evaluation if we are to inform future refinement and expansion of the File during field testing and full-scale operations.

The statement of work for Phase II propose that a mock clearinghouse be established for the pilot test to inform NIE on this aspect of file implementation and operation. Proposed content options deviate from the simulation proposed in the original proposal. The four options presented include NDN/SEA validated, locally developed, and commercial materials, as well as human resources. File size is expanded for each option as is the actual test period. While four options are presented, BRS recommends exercising 1, 2 and the first nine months of 3 as a minimal pilot test effort. Key decision points for NIE are identified by BRS.

Because it is necessary to keep the acquisitions effort and the file size manageable during the pilot test, BRS proposes to limit the subject area focus for SEA validated, locally developed and commercial materials to the competency based area of citizenship/consumer education. This content focus will not be applied to NDN validated materials. This content selection criterion is based on the high interest in this area and the availability of materials and programs.

The conduct of the pilot test will include the use of the file in approximately twelve (12) sites located in various educational organizations and agencies throughout the country. Coordination of all activities of the network of sites will be accomplished by the Merrimach Education Center (MEC). Activities for the pilot test include: (1.) selecting a sample of sites for participation; (2.) training site personnel in the use of the system; (3.) providing on-going support services to all sites; and (4.) evaluating the use of practice information.

An extensive evaluation of the development of the system, the implementation process and the outcomes of file use also will be undertaken. BRS proposes that a rigorous formative and summative evaluation be undertaken to provide objective documentation and analysis of the development and implementation of the file and to collaborate with the developers so that evaluative data are used within a framework of facilitative decision-making. Indicators for both the design and the installation stages will guide the formative evaluation. Evaluation questions for each file feature will guide the summative evaluation.

As was the case during Phase I, BRS shall rely heavily upon the advice of the Project Advisory Group (PAG) for reactions to draft design products and for specific consultant assistance. Regular meetings of the PAG and the LAC will be scheduled during Phase II. The scheduling of such meetings will be done so as to facilitate decisions by NIE on various policy questions. Gregory Benson will serve as project director and will be assisted by Charles Mojkowski in coordinating PAG and LAC activities and in preparing project documentation. Benson also shall oversee operations of the simulated clearinghouse. Richard Lavin will coordinate pilot test network activities and Ronald Szczypkowski shall coordinate evaluation activities.

SECTION II

Introduction

A

As projected in the original proposal submitted to NIE by BRS in the Summer of 1977, the development of files for educational practices and for human resources has proceeded at a rapid pace. The number of state education agencies (SEAs) initiating such development has increased substantially and these agencies have been joined by Regional Exchanges (Rx's), numerous federal programs (Teacher Corps, Special Education, Vocational Education) and by several national organizations (NEA, AFT, etc.). Such an accellerated growth rate substantiates the interest and need for automated storage and retrieval of practice related information.

This growth is accompanied by a certain number of problems usually associated with rapid expansion - fragmentation, unnecessary duplication, and incompatibility. The proliferation of automated data base development has resulted in a variety of file configurations. The lack of compatibility of file designs and operational procedures will hamper efforts to produce a nationwide data base unless the Education Practice File Development Project can produce a system which accommodates existing and developing systems or develops a superior design which others will choose to adopt. Whatever the outcomes of these efforts, it is clear that the pilot test conducted by BRS in Phase II will determine whether the federal level can produce the superior file which others will use.

Phase I activities were concentrated on designing such a superior file. The design effort was conducted in collaboration with educational disseminators from throughout the country. These relationships will be maintained in Phase II during the pilot test. During Phase I ideas for file content and format were solicited from a wide variety of interested educators and educational agencies. Review and analysis of research and practice literature was conducted to inform the design effort. A Project Advisory Group (PAG) (see Appendix A) was established by BRS to review design outcomes and recommend a file configuration for pilot testing and for ultimate full-scale use. An NIE Internal Advisory Committee (IAC) (see Appendix B) was formed by the NIE project officer to advise her on the selection of a file design for pilot testing. Both groups provided valuable guidance during Phase I and were in nearly complete agreement concerning the design for the pilot test.

The outcomes of Phase I activities are reviewed in Section III of this document. The file design recommended by both the PAG and the IAC for the pilot test is described in Product 1.6 attached as Appendix C. During Phase I, a number of issues were raised concerning the design, development, and implementation of the Practice File. These issues are discussed in Section IV and will be addressed during Phase II.

B

The purpose of this document, Product 1.8, is to present a detailed work plan for the conduct of Phase II activities. Although a simulated outline of such activities was presented in the original BRS proposal, the outcomes of Phase I activities have created a need to revise the Phase II plan. This revision is consistent with the language of the RFP which states that, "the Phase II work plan will reflect all justifiable deviations from this plan" (p. 21).

As a result of Phase I activities and outcomes, BRS is proposing several major amendments to the simulated work plan presented in the original proposal. These amendments are presented as a series of content options which are graduated in terms of the level of complexity and of the resources required. The basic option presented is similar to that described in the original proposal. Changes in this option include lengthening the test period, expanding the content and increasing the level of documentation and evaluation effort to focus on process variables in addition to user satisfaction and impact measures. Options also vary with regard to file and audience size. Further research of unresolved issues is built into some of the options so as to inform expansion of the Practice File over time. All of these options are described in detail in Section V. Also presented in Section V as Objective #1, is a rationale for conducting a simulation of a clearinghouse during the pilot test.

The pilot fest will be designed to produce information about the technical and organizational variables related to the development and maintenance of a national Education Practice File. It is important to recognize, however, the limitations of a pilot test in responding to all of NIE's information needs. Some issues cannot be answered in a test where volume of content and audience are so constrained. These questions will need to be answered in a subsequent field test of the file. The design presented by BRS allows for an incremental approach, proposing ways for NIE to move beyond the pilot test based on experience. Such an approach will facilitate the transition from pilot test to field test to ultimate full scale implementation.

The pilot test is an important source of information concerning many of the technical issues relating to the development of a file. The conduct of Phase II will be organized so as to obtain the maximum benefits from the test. A comprehensive documentation and evaluation system is proposed to inform NIE. This system is described in detail as Objective #3. The network of users will be managed as a discrete activity so that adequate attention is given to organizing and maintaining relationships for awareness, orientation, trouble-shooting and service. These activities are described as Ojbective #2. The organization of all Phase II activities is described in detail in Section V.

SECTION III

Review of Phase I

The expressed purpose and objectives of Phase I were to (1.) select a file for development which optimally satisfies four objectives (utility, technical feasibility, policy constraints and cost efficiency), and (2.) produce design specifications for developing and testing a file. The RFP specifications called for the submission of eight products (in addition to monthly progress reports) during the six-month Phase I period. BRS requested and was granted a two and one-half month no-cost extension of Phase I to more efficiently undertake and complete the required products.

This review of Phase I is summarized by product, indicating the (1.) RFP requirement for the product (2.) the BRS activities undertaken to generate the product, and (3.) a summary of the findings or outcomes embraced by the product.

Product 1.1 (File Idea List)

RFP Requirement:

> This product will show the range of alternatives for defining the content coverage of a bibliographic reference file. It will include a list of fifteen or more ideas for defining the content coverage for new reference files in the domain of education practice-related information (p. 11).

BRS Activities:

Since the RFP did not allow for any formalized data collection requiring OMB clearance during Phase I, BRS undertook a concentrated schedule of personal interviews and group discussions across the country. These discussions put project staff in direct contact with the following agencies:

- Education Commission of the States
- National Education Association
- Council of Chief State School Officers
- Far West Educational Laboratory
- Northwest Educational Laboratory
- San Mateo Educational Resource Center
- University of Southern California (NIMIS)
- New York State Education Department

Also, representatives of the following educational agencies or programs were interviewed in group or individual sessions:

- State Education Agencies
- Intermediate Education Agencies
- Local education agencies
- Research and Development Exchange program
- Higher educational agencies
- ERIC clearinghouses
- Educational resource centers
- Teachers centers
- National Diffusion Network

-Women's Equity Project

-Research and Development Utilization program

-State Capacity Building program

-City school districts

-Commercial publishers

-Educational consulting firms

Visitations and meetings were scheduled with agencies, programs and individuals that represented educational areas complementary to those areas represented by the Project Advisory Committee. Advisory Committee members provided their input and generation of ideas at the initial meeting of that group held in Washington, D. C. on December 14 and 15, 1977.

In all cases, discussions with individuals or groups centered around the file features of content, acquisitions, selection, processing, file maintenance, vocabulary development, source document availability, search and retrieval capability, user products and user services. The consistent focus of discussion on those file design features throughout Phase I documentation provides a framework for relating all Phase I products and facilitates a historical tracing of the file design specifications proposed for development and testing during Phase II.

Findings/Outcomes

A summary of file feature suggestions provided by educators representing the agencies mentioned above follows:

Content

-Major variable relates to where a source (specific file content) falls on the "Autonomy of Resource Continuum" - Can a teacher use it without technical assistance and/or a large budget.

-Other variables relate to level, content, media type, availability, and level of evaluation.

Acquisitions

-Interactive vs. limited interactive vs. one-way technically mediated communication links are alternatives related to the interaction between acquisition organizations and the file operational center (no technically mediated link is also an alternative which is representative of the current ERIC system).

-Nationally vs. regionally vs. State vs. intermediate based core of acquisition efforts are alternatives related to an ultimate design configuration.

Selection

-With regard to practice performance criteria, suggestions were on a continuum from those having only recent, hard data demonstrating success to, those with no data, or data demonstrating failure.

-With regard to the selection process, suggestions were on a continuum from centralized authority to, decentralized, direct input authority. Approximately mid-point in that continuum might be a multi-level system of referral upward to a centralized authority with screening taking place at each level.

Processing

-Should be ERIC compatible with the inclusion of new information fields as is appropriate to the content decided upon.

Vocabulary Development and Maintenance

-Use ERIC vocabulary with the addition of new "practice-oriented" terms and provision for more efficient term addition or deletion.

File Maintenance

-Online file content modification capability was felt to be a necessity. Extent and organization of this online capability shall be determined by resources available.

Source Availability

-For a document-based resource, the preference was for local availability of the actual documentation through resource centers. Funding restrictions shall probably dictate microforms of printed source material.

-For non-print resources, the preference was also for local availability. Funding restrictions will probably dictate at least regional depositories.

-For practices whose source is really a process, it was suggested that the developers have the responsibility for dissemination and/or technical assistance much the same as NDN Demonstrators have now.

Search and Retrieval System

-The alternatives suggested here related primarily to format modifications and did not appear to be constrained by any technical limitations.

User Products and Services

-With regard to products, suggestions were consistent with products currently being produced by ERIC clearinghouses with the exception of video or audio distribution of awareness level information on many practices contained in the file.

-With regard to services, a strong training and orientation function was felt to be necessary. Also, the intermediary service function was felt to be critical especially for that content which cannot stand alone.

Organization for Operating the File

Since content and the acquisition procedure shall drive the major portion of the external organization configuration, the emphasis here was placed on what incentives shall be utilized to sustain system collaborative efforts. Mandate, money and mutual benefit (to contributor and system) were suggested as key incentives.

The central organization consisted of a national clearinghouse for educational practices that was complementary to other ERIC clearinghouses and dependent on central ERIC functions to a large degree. The basic technical departure from other ERIC clearinghouses would be the centralization of the database to allow for online updating, purging, and acquisitions input and editing.

Specifics regarding content suggestions, ERIC format modifications and file maintenance procedures can be found in Product 1.1 but generally they relate to content more oriented to the practitioner, information fields to allow for more detailed searching and "real time" file maintenance procedures through use of online capability.

Product 1.2 (Review of Related Information Products and Services

RFP Requirement:

> The purpose of this product is to identify existing information products and services with which a new bibliographic reference file in the domain of education practice-related information should be coordinated. (See Objective 3. Section 1.c). It will consist of a brief summary of the existing information products and services which may be related due to similar content coverage, or related design features (p. 11).

BRS Activities/Outcomes

By mutual agreement between BRS and the NIE project monitor, it was decided that this product be prepared in two parts. The first part was designed to fill in possible gaps resulting from not visiting all information centers as part of the activities of Product 1.1 and to determine if in fact the "ideas" generated in 1.1 were duplicative of any existing resources. Brickley and Trohowski of RISE assisted with this initial task and they

found that. . . . "there is no presently existing, practice-based, educational information product or service of a comprehensive nationwide, machine-readable file nature".

Part II of Product 1.2 was not a separate document but rather an extensive literature review, also undertaken by Brickley and Trohoski, that either supported or failed to support alternatives being considered in Product 1.4/1.5 (Preliminary Design Feature Alternatives and Discussion of Their Feasibility for a National Education Practice File). The literature citations generated by Brickley and Trohoski are represented in the bibliography attached to Product 1.4/1.5. This support literature aided greatly in the consideration of the alternatives for implementation during Phase II.

Product 1.3 (Screened File Idea List)

RFP Requirement:

The purpose of this product is to document the decision to select three alternative file ideas. DRG will select three (3) ideas for files in the education practice-related domain from those presented in Product 1.1. The contractor will record those selected and submit that record to DRG (p. 11).

BRS Activities:

The prerequisite activities leading to this product were the creation of Product 1.1 and scheduling a meeting of the NIE Internal Advisory Committee (IAC) and BRS staff. At that meeting held on January 23, 1978, the IAC discussed each file feature (listed under Product 1.1 above) and the alternatives suggested by educators for each.

Outcomes:

For the critical file design feature of "content", the IAC used three criteria eliminating alternatives presented in Product 1.1. They were: (1.) not related to instruction; (2.) some or all documentation is already available through other sources; and (3.) obviously not feasible given the present level of resources, technology and policy problems. The resultant discussion of "content" led to the generic classification used in later documentation which are: (1.) NDN/SEA validated practices, (2.) Exemplary practices, (3.) Non-validated practices including locally developed and commercially developed.

The file features were dealt with in three sets and the alternatives suggested by the IAC for further exploration and feasibility analysis in Product 1.4/1.5 are shown in the following diagram:

Alternatives for Feasibility Analysis

I

Content

- NDN/SEA Validated
- Exemplary
- Non-validated

Acquisitions

- use new ERIC Clearinghouse for all operations
- use existing ERIC Clearinghouse for all operations (one or more)
- use non-ERIC organization for acquisition

Selection

- use learner outcomes w/screening
- review panel
- all practices, cite evaluation where available
- multi-level criteria
- use learner outcomes w/o screening

Source Availability

- abstracts/descriptions only
- abstracts/descriptions and documentation

II

Processing

Include the following information fields:

- Evaluation Type/outcomes
- Funding source
- Location
- Initiation date
- Target population
- Contact person
- Materials availability and cost
- Recommended by
- Replication costs
- Transferability scale
- Extent of TA required
- Material use
- Update info

File Maintenance

- Develop system purge/update capability (explore variations)

Vocabulary Development and Maintenance

- Use ERIC Thesaurus, adding new terms where appropriate

III

Search and Retrieval

- Practice File searchable with ERIC

User Products

- SDI-type newsletter publication
- Audio and/or video presentation of selected practices
- Lists by media
- monthly/annual catalog
- Lists by topic
- Information analysis products
- The "best of the practice file"

User Services

- Online ordering capability
- Online user feedback capability
- General system orientation program
- An -800- phone number

Product 1.4/1.5 Preliminary Design Feature Alternatives and Discussion of Their Feasibility

RFP Requirements:

Product 1.4

PRELIMINARY DESIGN. The purpose of this product is to present a preliminary plan for designing files based on the ideas documented in Product 1.3.

Product 1.5

FEASIBILITY ANALYSIS. The purpose of this product is to provide DRG with the contractor's analysis of each preliminary design. A feasibility analysis will be submitted for each of the three preliminary designs described in Product 1.4. This analysis will address the file objectives shown in Section 1.c. (utility, technical feasibility, policy issues and cost efficiency).

BRS Activities:

At the IAC meeting on January 23, it was agreed that Products 1.4 and 1.5 could be combined for ease and efficiency of preparation.

It was also agreed that, rather than presenting three discrete, full file configurations, each file feature alternative would be discussed independently but in context with other alternatives within the same feature. This was determined because selecting certain file feature alternatives had the effect of limiting what alternatives might be considered from within other file features. This would have led to an endless series of "if then..." propositions exploring each possible combination of feature alternatives. The decision, then, led to Product 1.4/1.5 being presented in two parts, Part I, a discussion of each alternative and Part II, the suggested file design for the pilot test.

BRS produced a draft of Part I and submitted it to the Project Advisory Group on March 1, 1978. On March 16, that group met and (1.) provided further input to the Part I discussion and (2.) through a modified delphi technique reached consensus on the suggested file design to be presented in Part II. BRS then completely recreated Product 1.4/1.5 and submitted it to NIE on April 3, 1978. On April 10, the IAC met to discuss Product 1.4/1.5 and provide BRS with guidance regarding the pilot test parameters.

Outcomes:

With minor exceptions, the IAC accepted the suggested design configuration presented in Product 1.4/1.5. A summary of the recommended guidelines for the pilot test that grew directly out of the meeting on March 10 is attached as Appendix D.

Product 1.6 File Design

RFP Requirements:

The purpose of this product is to provide DRG with one completed file design, for implementation during Phase II. A final design will be submitted for the file selected from among alternatives presented in Product 1.4. The final design will include specifications for the file. Specifications should include the necessary guidance for developing tools, procedures and other elements necessary to actually construct the test file, and user product.

BRS Activities:

With non-contract funds, BRS secured the assistance of Brickley and Trohoski to prepare this product. This was done in order to allow BRS contract staff to devote full attention to Product 1.3 (this document).

Outcome:

Product 1.6 is a more detailed description of the file design suggested in Product 1.4/1.5. It includes guidance for operationalizing the file features inherent in the design. Product 1.6 is attached as Appendix C.

Product 1.7 Evaluation/Test Design

RFP Requirements:

The purpose of this product is to indicate how the file will be tested and evaluated during Phase II. The research plan, and logistical arrangements (e.g., announcing the test service,

delivery of service), work plan and cost estimate will be submitted for approval.

BRS Activities:

BRS had originally proposed that Dr. Richard Lavin coordinate the pilot test activities. Since Dr. Lavin would have that ultimate involvement, BRS, again with non-contract funds, secured Dr. Lavin for assistance in preparing Product 1.7 material

In addition, BRS felt that the evaluation design for the pilot should include not only output or "user oriented" data as required by the RFP, but also formative data to explore and inform project management regarding the adequacy of procedures and relationships required to build the test file. In that regard, BRS, again with non-contract funds, secured assistance from Magi Educational Services, Inc. (Dr. Ronald Szczypkowski) to develop a full evaluation plan in conjunction with Dr. Lavin.

BRS staff met and conferred with the consultants to discuss the parameters of Product 1.7 requirements since it is a significant component of this document (Product 1.8). Final preparation of both Products 1.6 and 1.7, although assistance was secured from outside the contract, was accomplished by BRS staff.

Outcomes:

Product 1.7 requirements have emerged as significant documentation detailing the pilot test and the evaluation design to be utilized during the test period. Product 1.7 material has been merged into Product 1.8 since Product 1.8 must include the planned pilot test and evaluation. The specific sections representing Product 1.7 are Objectives #2 and #3 contained in Product 1.8 (this document).

SECTION IV

Overview of Methodological and Logistical Problems

This section addresses a small number of methodological and logistical problems which were identified in the original proposal or in Phase I activities. Although they are discussed in isolation here, they are addressed within the context of specific Phase II activities in Section V. Problems discussed in this section are not those identified as research questions which the pilot test will investigate or which will be left for the field test. Rather, the problems discussed below relate to relationships for acquisitions (input) and for dissemination (output), to orientation and training, and to documentation and evaluation.

Input/Output Relationships

As discussed in the original BRS proposal, the new relationships which need to be established in an effort of this nature and scope are of such magnitude that a substantial amount of project resources will need to be devoted to them. However technically sound the file design, it is not likely that maximum benefits will be derived unless appropriate relationships with users and others are established. This is particularly true of acquisitions activities. While there is substantial evidence that the output of a Practice File would be useful to practitioners, there is also evidence that they are not as motivated to provide input to the Practice File. Similar efforts (Xerox Curriculum Clearinghouse and the New York State Teacher Developed Materials File) have discovered that practitioners are not disposed to input practices to a file.

Given the difficulty of acquiring practices, it is likely that BRS will need to investigate the use of special incentives to encourage submissions. This problem will not be significant with respect to such established data bases such as NDN and State-validated projects/practices but will be substantial with respect to locally-developed practices. The range of incentives available and appropriate for use at the Federal level is limited. For this reason, it is likely that a national effort would need to make available human resources to actually go into the field and collect and document practices. Incentives might be provided to organizations or agencies comprised of practitioners. BRS will be investigating the use of such incentives for acquisition, depending on the scope of file content allowed for the pilot test.

Another key methodological issue with respect to relationships is that relating to those between the new acquisition mechanism and the existing clearinghouses. If the Practice File attempts to collect locally-developed practices, it is likely to be establishing relationships with practitioner organizations that are already dealing with an existing clearinghouse. Special attention will need to be given to coordination with the existing clearinghouse structure so as to minimize conflict problems. Through the Project Advisory Group, through visits to clearinghouses and through meetings with ERIC Central staff at NIE, BRS will ensure that acquisition activities are orchestrated.

Whatever the content scope of the pilot test file, it is not the case that it will deal with the range of content to be handled during the field test. Given this situation, caution should be taken so as not to raise expectations in the field regarding services to be delivered during the pilot test. It is important that publicity for the project emphasize the controlled nature of the pilot test. BRS staff and consultants will emphasize this point in their relationship - building activities with users and others interested in the project.

Orientation and Training

Despite the fact that the Practice File will be designed using the ERIC system as a foundation, there are several new elements that will require that a rigorous orientation and training system be designed and implemented. Moreover, it is not likely that all of the personnel at the pilot test sites will be familiar with the BRS retrieval system. BRS will use as a core for its training system a tested course in the use of the BRS system. In addition, BRS staff will prepare a special set of modules for orientation and training in search and retrieval procedures for the Practice File.

All training will be conducted by BRS staff in collaboration with the service network management under the direction of Richard Lavin. Dr. Lavin will make overall arrangements for all orientation and training with all sites. Documentation and evaluation of training will be coordinated by Ronald Sczcypkowski.

Evaluation

The principal device for learning from the pilot test will be the documentation and evaluation system. Given the number and complexity of issues and research questions needing to be addressed in the pilot test and in future phases, a major commitment to extensive documentation and evaluation must be made by NIE. Section V, Objective #3 discusses the research questions which BRS recommends for study during the pilot test and proposes a design for responding to them. The design focuses on both formative and summative variables, stressing extensive documentation of procedures, processes and decision situations in addition to more traditional client assessment variables. While the proposed scope is somewhat larger than is indicated in the RFP, BRS believes that the investments made in this activity would yield substantial benefit to inform field test and full-scale operations.

Workload

The sequencing of activities across the four options presented in Section V could be a source of problems if NIE were to choose to implement all four at once. Doing so is not merely a question of adequate resources. What is needed is time to learn from the experiences of developing acquisition relationships with respect to option two. To proceed immediately with the design of procedures for commercial practices and for human resources would entail additional human and financial resources as well as result in an inadequately conceptualized design for both.

To respond to this potential problem, BRS proposes that the initiation of design activities for options three and four be delayed until design work is completed for the internal test for option one and for the acquisitions activities for option two. The details of this sequence are presented in Section V.

SECTION V

Statement of Work and Technical Approach

A. Rationale for the Simulated Clearinghouse

Much discussion has taken place during Phase I regarding the ultimate organizational requirements and location of the Education Practice File. Options under consideration are: (1.) current ERIC CH's absorb Practice File; (2.) a new ERIC clearinghouse be established exclusively for the Practice File; and (3.) an organization outside the ERIC system be responsible for the Practice File. Regardless of the option ultimately selected for formal institutionalization of the Practice File, certain basic activities will be required and are now required for building a test file. Those basic activities include establishing and operationalizing acquisition relationships and processing (selecting, abstracting and indexing) input to the file.

A simulated clearinghouse consisting of minimal staff (during Phase II) shall require that all or most of the operational problems (i.e. building non-duplicative acquisition arrangements, physically processing materials, dealing with an advisory committee, resolving management problems, responding to NIE contract requirements, etc.) inherent in the ultimate institutionalization are dealt with. In addition, a simulated clearinghouse function during Phase II allows for the conduct of a more structured "formative evaluation" to better inform the ultimate decision regarding organizational location and administration of the Practice File. Unit costs comparable to those currently calculated for ERIC acquisitions, selection, processing (RIE and CIJE), and

questions and answers, can be easily developed during operation of the simulated clearinghouse and thus directly inform an ultimate decision based on cost data. Also, since the simulated clearinghouse shall deal with content from a variety of sources, the organizational relationships and acquisition incentives structures will be fully explored. This will allow for the collection of information and data based on policy and political considerations that can also directly inform ultimate decisions. Processing documentation via the simulated clearinghouse to a machine-readable, retrievable database will allow for the documentation of technical problems as well as procedures that will ultimately facilitate the transition from a pilot to an operational mode.

BRS considered using ERIC staff to accomplish some of the processing tasks. However, the coordination needed with a complex developmental activity such as this would be lost if selected functions were decentralized. Also, costs would be greater since communications, mail, meetings and visitations by evaluation team members would be required. In lieu of actual ERIC CH staff work on the file, BRS has budgeted for EPF staff to visit selected ERIC clearinghouses to review and consult regarding ERIC procedures and ERIC-compatibility.

In short, the simulated clearinghouse provides an organized context within which the project can: (1.) accomplish the building and maintenance of the pilot file; (2.) provide a mechanism for expanding to a field test; (3.) provides an entity for the focus of information and data collection for the "formative" portion of the evaluation; (4.) provide a manageable administrative effort

for this developmental project; and (5.) be accomplished more cost-effectively than other alternatives. The simulated clearinghouse provides an observable structure as close to the ultimate organizational requirements as is possible thus allowing ease of transition to whatever institutional setting might be deemed appropriate in the future.

B. Rationale and Explanation of Content Options

The original RFP for this project cited hypothetical parameters for Phase II. It stated that (p. 20)..."Phase II work cannot be proposed in detail until the design products from Phase I become available. However, for purposes of the proposal review, NIE requests a simulation of the proposer's approach to the work required in Phase II." Further, the RFP states (p. 21) ..."The Phase II work plan (actually developed after Phase I) will reflect all justifiable deviations from the simulated plan. Modifications in the Phase II plan will be recommended by the contractor in Product 1.8 (this document), as appropriate."

This section provides a rationale and explanation of how and why this plan deviates from the simulated Phase II plan submitted in the original proposal. The deviations are presented as a series of options each of which expands the content scope of the pilot test file, and each of which contains decision points for NIE that allow for expansion after initiation of Phase II. These "expansion points" provide avenues and means for facilitating the transition from a pilot to a fuller field test and ultimately to an institutionalized Practice File.

At the end of this Section there is a summary chart of the options proposed as well as projected time requirements for each option.

Content Option #1

Option #1 deviates the least from the original Phase II work plan. Content of the Practice File for this option includes validated projects of the National Diffusion Network and State-validated projects in the area(s) selected for content focus. A content area suggested as one to focus upon is citizenship education/consumer education (see "NOTE" at end of this section.

The volume of the file for Option #1 is consistent with the original proposal (1,000 entries). If NDN-validated and State-validated Citizenship Education practices do not total 1,000, other State-validated practices would also be sought. This option would include an expanded user test population and a delivery network including 10-15 sites made up of one or more of the following: intermediate service agencies, state education agencies, Regional Exchanges, Teacher Centers, an ERIC clearinghouse and the NIE Reference Center. The number of users reached would be far greater than the 150 originally proposed but it is the feeling of the contractor that an expanded user base shall greatly increase the reliability and validity of the evaluation data.

The most significant deviation from the original proposal is the expansion of the actual file test period from three months to six months thus making Phase II eighteen months in length. The expanded file test period is necessary in order to: (1.) allow more routinized use of the Practice File as opposed to file availability for an extremely

short "experimental period" which could skew results; (2.) extend the file test beyond the school year and into the summer months when LEA's would typically utilize such a resource for program/curriculum development for the next school year (this usage context is critical to accurate feedback regarding file utility); and (3.) facilitate a more diverse set of users and usage conditions which might be sampled in order to guide-design/delivery specification revisions; and (4.) allow for adequate data collection. In short, a three-month test period is simply viewed as an inadequate sampling period to inform the expanded effort to develop such an important educational resource base.

Content Option #2

Option #2 content deviates entirely from that originally proposed in the simulated Phase II work plan in that it includes an attempt to acquire and process locally - developed - practices in the test file. BRS feels that to adequately pilot test a Practice File, Option #2 must be excercised. Option #1 simply tests the obvious, since incentives exist to both input and use validated practices. However, for locally developed practices, few incentives exist for submission to the Practice File. A more representative test of the feasibility of developing a resource with such content is definitely needed.

With regard to the utility of locally developed practices, several authors cited in Product 1.4/1.5 clearly support that notion. In fact, locally developed practices relate more directly to the intended audience of the practice file as was indicated in the RFP (teachers and other instructional staff and principals and other administrators of education agencies). The utility of Option #2 content is significantly greater to the practitioner group then are validated practices (Option #1) whose installation is contingent upon decisions made beyond the practitioner level.

The size of the Option #2 test file is also 1,000, making the total for Options #1 and #2 2,000 entries. The actual file test period for Option #2 is also six months. It is proposed that the same subject/content area(s) selected for the SEA-validated focus be carried over to this option (e.g., citizenship education/consumer education). The number of test sites would remain in the same range (10-15). BRS wishes to emphasize that it feels strongly that Option #2 must be excercised to adequately test the notion of a National Education Practice File.

Content Option #3

Option #3 content is commercially developed practices. As reported in Product 1.4/1.5, the major portion of the educational practice in U.S. schools today is based upon commercially developed materials. Therefore, a Practice File would not be representative if commercially developed materials were not included. Because of the policy issues raised with regard to a Federal role in the dissemination of privately-produced materials, an extended period of time (six months) is required for this option. The proposed file size for this content option is also 1,000, making the total 3,000 for all three options. The number of test sites and the length of the file test period remain consistent with Options #1 and #2.

BRS feels it is critical to excercise a minimum of nine months of Option #3. This would allow the contractor time to resolve policy issues and develop potential acquisition arrangements. At the end of month nine, NIE could review documented progress and plans for the commercial materials and make a decision concerning whether the acquisition plan should be implemented with additional funds and the file tested with this content.

The importance of including commercial materials in the pilot test of the Practice File rests with the divergent set of acquisition procedures required, much the same as those that distinguish Options #1 and #2. Also, the letter (attached as Appendix E) sent to NIE by Mr. Edward Ball (a member of the PAG) clearly indicates the position

of the Association of American Publishers regarding the inclusion of commercially developed materials in the Practice File.

With cooperation and willingness as expressed by the above letter, it would seem remiss not to excercise a minimum of nine months of Option #3. The excercise of this opportunity is an action particularly suited to NIE and this project. Organized inclusion of commercially developed materials in Federally sponsored resource bases is not an issue that will disappear if ignored and will not be addressed by any other Federal agency. This option and the built-in NIE decision point (after nine months) affords an opportunity to cautiously explore the policy issues and incrementally move toward a practical resolution of the issue.

Content Option #4

Option #4 proposes a human resource file development effort. Although this option is somewhat of a departure from a practice file in the strict sense, the need for this file was frequently mentioned throughout Phase I. Evidence cited in Product 1.4/1.5 supports the notion that the availability of practice materials alone is not sufficient and that a human interface offering assistance is also required. The potential sources of this assistance far surpass that which is inferred by a single Practice File entry (the contact person). A human resource file developed as a companion to the Practice File would be a valuable, and ultimately perhaps required, resource development effort.

This option is phased in the same manner as this entire File Development project in that the initial nine month period is a design stage and the remaining 24 month period is an implementation stage. This option does entail a lengthy developmental effort but the policy and legal questions that need to be answered as well as the overall sensitivity of any effort that deals with personal information certainly will require the time allocated.

At the present time, several state and regional education agencies are developing human resource files. It is an opportune time for NIE to accomplish at least the design work so these current and future efforts have a common developmental framework and compatible data. If this were done now, it ultimately would conserve the inefficiencies inherent in attempting to develop a national system after many states and regions have already developed systems at their levels.

BRS understands the degree of departure this option represents from the basic Practice File effort. However, it is an effort that must be undertaken and if done now, could be developed so that the human resource file reflected the practices contained in the Practice File.

This option is shown in the timeline below as being initiated with the other three. To decrease the total, immediate funding required, this entire option could be moved back several months and considered as an NIE expansion point. This would also provide contract staff maximum experience with the other three options so that experience might be applied to greatest advantage for this complex design effort. The human resource file size, file test period and number of test sites are consistent with the other file content options.

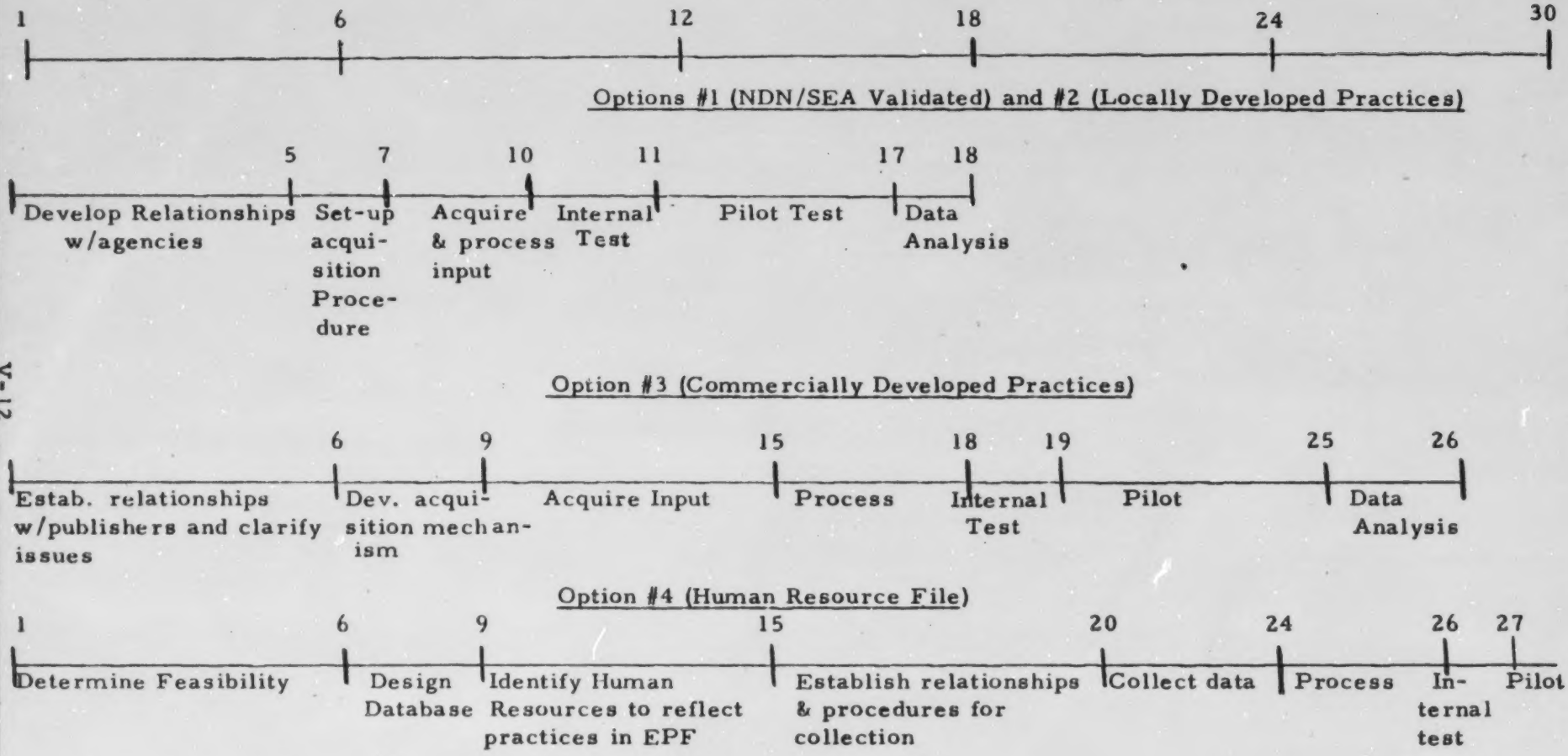
A summary chart of the four content options and time requirements for each are shown below:

PHASE II

Content Option Summary

Option	Content	File Entries	Test Sites	Test Period	Total Period
#1	NDN/SEA Validated	1,000	10-15	6 mos.	18 mos.
#2	Locally Developed	1,000	10-15	6 mos.	18 mos.
#3	Commercially Developed	1,000	10-15	6 mos.	26 mos.
#4	Human Resources	1,000	10-15	6 mos.	33 mos.
	TOTAL	4,000	10-15	6 mos.	33 mos.

Phase II Content Options and Time Requirements



V-12

Summary and Recommendations for Excercising the Content Options

Phase I activities have clarified the need to go far beyond the original simulated Phase II proposed by BRS. NDN and State-validated practices are simply insufficient with regard to both utility and a meaningful test of a practice file acquisitions and processing design. The efforts already underway in various SEA's, in regional and national organizations also make it clear that to restrict the Practice File to Option #1 is, for practical purposes, far from a leadership effort.

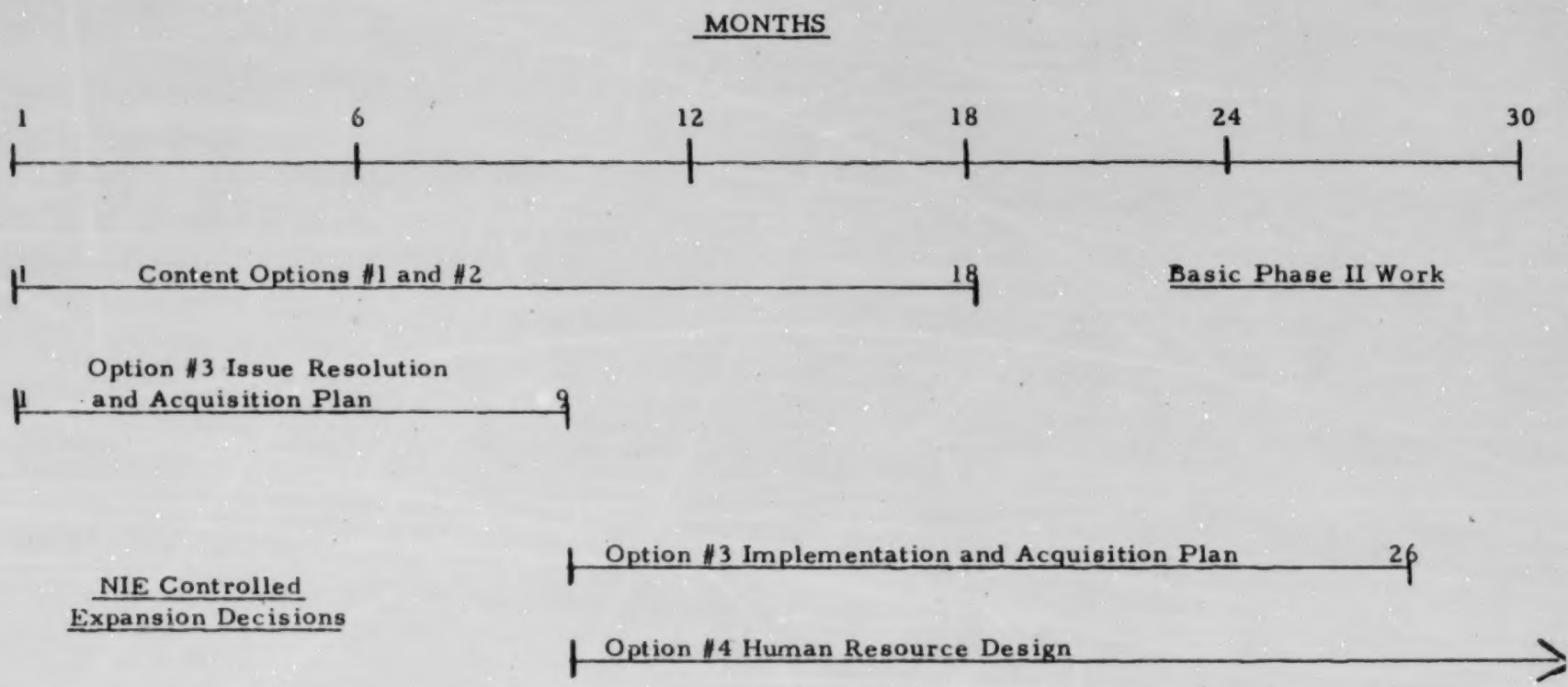
The literature cited in Product 1.4/1.5 strongly supports the need for locally developed practices (Option #2) and the reality of present school practice leaves little doubt with regard to the need for commercially developed practices (Option #3). With this in mind, BRS recommends excercising all of Options #1 and #2 and the initial nine months of Option #3 as the minimal pilot test effort. Excercising that minimum provides a pilot Practice File of 2,000 entries consisting of NDN/SEA validated practices (1,000) and locally developed practices (1,000). At the same time, it provides resolution to the issues surrounding inclusion of commercially developed materials and an acquisition plan for input of those materials.

At the end of month nine, BRS recommends that, if the Option #3 issues have been adequately resolved, and the acquisition plan for commercial materials is adequate, NIE fund implementation of the acquisition plan for Option #3. This effort with Option #3 is felt to be particularly important in view of the interest demonstrated by the Association of American Publishers.

BRS recommends that Option #4 also be considered for implementation after month 9. This allows full benefit of design and implementation experience gained with Options #1 and #2 and part of #3 to be applied to the human resource content option.

A summary timeline of these recommendations follows:

BRS Recommendation for Phase II



V-15

NOTE: The content options discussed above relate to variables other than the actual subject focus. It is intended that all NDN-validated practices would be included in the practice file. Other than that content type, however, a subject area limitation shall be required to keep the acquisitions effort and file size manageable during the pilot phase. BRS has chosen to limit the subject area focus of other content types (all or most of SEA-validated, locally developed practices and commercially developed practices) to the competency based realm of citizenship/ consumer education. BRS has selected this area because: (1.) it falls within the realm of competency based education and many states (39) are developing programs to address competencies; (2.) the citizenship/consumer education area is a high interest area in todays social context; (3.) the citizenship/consumer education area requires the application of basic skills; (4.) the citizenship/consumer education competencies are especially relevant to the urban areas.

BRS has already determined that the American Bar Association in Chicago, Illinois has on hand, and is collecting educational practices related to citizenship education especially in the law-related area. In addition, BRS has contacted Dr. Dustin Wilson, Director of the Office of Consumer Education,

USOE and he and his staff have a collection of consumer education practices which can be made available for the test file. These initial contacts indicate that this subject area would not present insurmountable acquisition problems especially since other sources (i.e. SEA's, Regional Labs and intermediate agencies) can be approached in addition to the agencies already contacted.

C. Project Management

As was the case during Phase I, BRS shall rely heavily upon the Project Advisory Group (PAG) as a primary source of advice, for reactions to draft documentation, and as a cadre of professionals who might be called upon to assist with specific tasks throughout Phase II. The PAG complements the NIE Internal Advisory Committee (IAC), whose membership is representatives of various Federal agencies and whose responsibilities include reviewing project documentation and providing policy level input and advice. Regular involvement and communications to the two project advisory groups shall be continued because it is consistent with the BRS intent to maintain a participatory approach to project management. Internal project management shall be continued by Gregory Benson, the project director. Dr. Charles Mojkowski will assist the project director with the coordination and conduct of Advisory Group meetings and serve to facilitate the transformation of the outcomes of Advisory Group meetings into operational management considerations of the project. Dr. Mojkowski shall also assist with the preparation of formal project documentation.

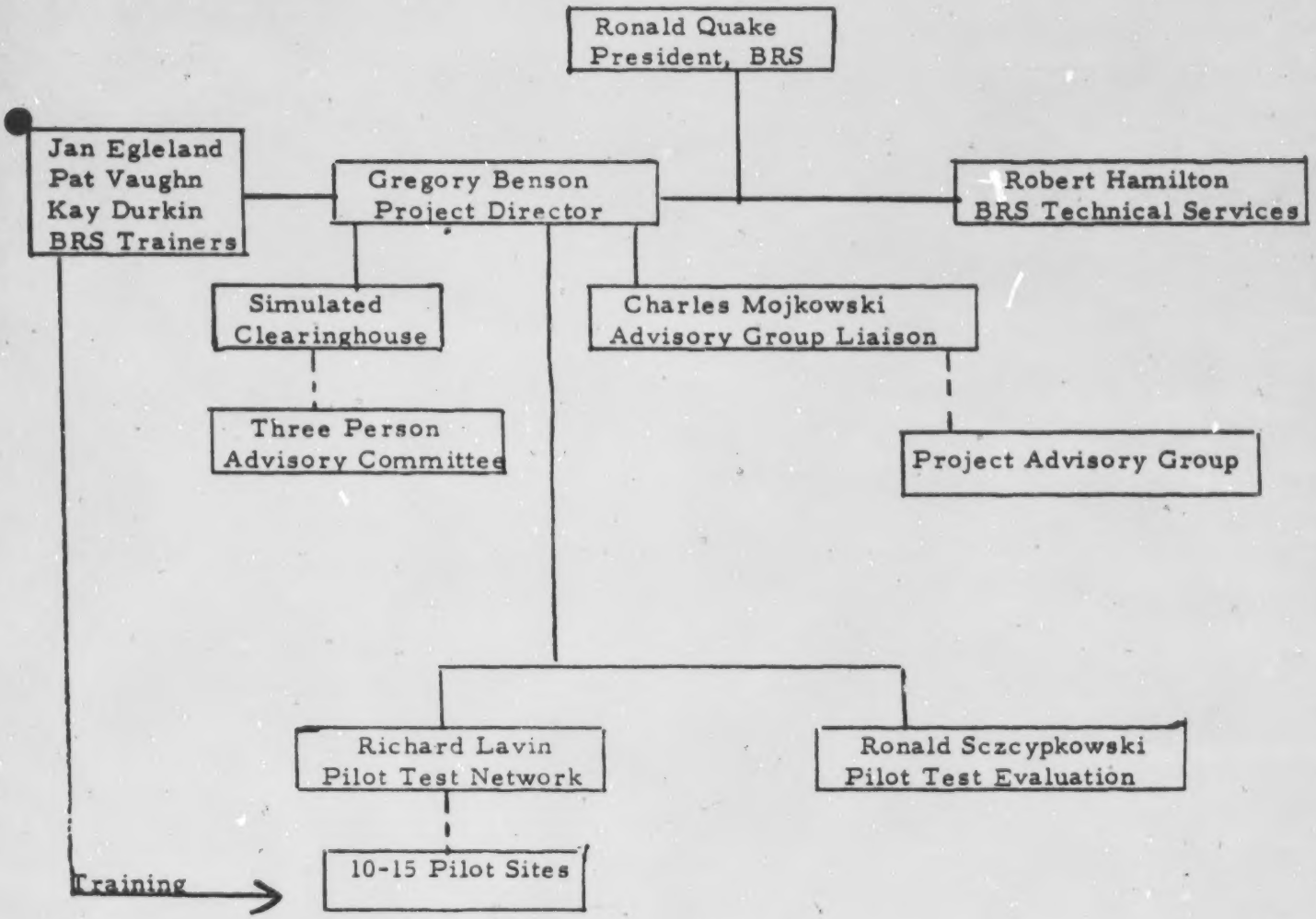
The project director shall directly oversee the operation of the simulated Practice File Clearinghouse. The simulated clearinghouse shall have a three-member advisory committee chaired by a member of the current PAG. The other two members of that

committee shall be local educators involved in the instruction of the content area(s) selected as appropriate for the pilot test file. In addition, the project director shall work directly with Dr. Richard Lavin who shall coordinate the pilot test network and with Dr. Ronald Szczypkowski (Magi Educational Services) who shall coordinate the pilot test evaluation activities. Lastly, the project director shall work closely with Mr. Ronald Quake and Robert Hamilton of BRS, to ensure that the required technical (hardware/software) capabilities are developed and in place in direct support of project activities.

This management arrangement provides a cadre of project staff members, each with a clearly defined responsibility: Benson, overall project coordination and operation of the simulated clearinghouse; Mojkowski, communications between project and advisory group; Quake/Hamilton, hardware/software requirements; Lavin, development and operation of the pilot test network; Szczypkowski, design and conduct of the pilot test evaluation. This delineation of responsibilities increases efficiency for both internal management purposes and external (NIE) monitoring functions.

Although there are some problems inherent in a decentralized staff, frequent written and phone communications augmented by meetings at a central location (Holyoke, Massachusetts, has been and will continue to be a frequent, convenient meeting place for project staff) when group interactive work sessions are required.

Phase II Project Organization



External Project Advisory Group meetings are tentatively scheduled for month eight, just prior to the NIE expansion decision points and significantly in advance of the initiation of the pilot test (about 2-3 months) in order to provide input to that major undertaking, and month seventeen to review existing evaluation data and offer policy guidance to NIE regarding an expanded effort.

Internal Project Advisory Committee members shall be contacted immediately by the evaluation team to clarify membership expectations regarding outcomes and data generated during Phase II. In addition, a meeting shall be held in month nine to consider the expansion decision points, and another at the completion of Phase II.

The three-person CH Advisory Committee shall meet two to four times. No scheduling of these meetings has been done at present.

D. Objectives/Activities

Objective #1 - Create the Pilot Test File

(Activities outlined under this objective are summaries of the implementation steps for the File Design documented in greater detail in Product 1.6 attached as Appendix C.)

Activity

1.1 Establish the simulated Practice File Clearinghouse

Clearinghouse activities will be created at BRS involving minimal staff reflecting the functions of acquisitions, abstracting and indexing. These staff shall also be responsible for online input, editing and updating of the test file as well as creation of general Practice File announcement material.

1.2 Establish acquisition relationships

The specific relationships established shall vary depending on the content options chosen. This process shall include contacting/visiting some ERIC clearinghouses and/or clearinghouses funded by OE to determine extant relationships they might have that are relevant to the Practice File. Following that, unique relationships will be developed with organizations (SEA's, Regional Exchanges, national organizations, etc.) to acquire specific content.

1.3 Create-loading and retrieval programming (Product 2.3)

BRS is currently marketing an online database loading and updating capability (PDS/11 - See Appendix C, Section F) and database retrieval package. These packages shall be modified slightly to accommodate the information fields unique to the Practice File.

1.4 Acquire input

Based upon the relationships established in activity 1.2, actual content materials shall be acquired as file input. A representative mix of acquisition sources and media format shall be sought.

1.4.2 Select materials

Using the general criteria currently used by ERIC and criteria that relate to the availability of specific information fields required for the Practice File, practices will be screened for input to the file. (See Appendix C, Section C)

1.4.3 Process (abstract and index) practices into the file (Product 2.2)

Using techniques similar to those operable in ERIC clearinghouses, practices shall be abstracted and indexed for entry into the file. (See Appendix C, Section E)

NOTE: Planning discussions have been held with the Acting Dean, School of Library and Information Sciences of the State University of New York at Albany to determine their interest in providing faculty and advanced graduate student assistance with this activity as well as creation of the controlled vocabulary. The willingness of the

University to participate in this project is documented in a letter attached as Appendix F.

1.4.4 Create controlled vocabulary (Product 2.2)

The ERIC Thesaurus shall be used as the basis of controlled vocabulary development. However, it is anticipated that new terminology shall be generated and added to the current Thesaurus. (See Appendix C, Section G)

Special Activity: Related to the development of a controlled vocabulary, an investigation shall be undertaken of the Annehurst Curriculum Classification System and the Select Ed system to determine their relevance for future direction of the Practice File. This activity shall include:

- Visiting those operational efforts
- Documentation of the efforts
- Derivation of the implications the efforts have for the Practice File
- Recommendations to NIE regarding the implications for future Practice File development

1.4.5 Create MF of print materials and explore cost-recovery copy making

An attempt shall be made to subcontract with the current EDRS contractor to generate MF of the printed practices included in the file. If this is not possible or proves to be cumbersome for this small an effort, a local vendor shall be sought for this task. A cost-recovery based document reproduction service shall be explored, especially for locally developed practices in print form.

1.4.6 Create announcement documents (Product 2.6)

General announcement material regarding the file shall be made available to all test sites. In addition, the content announcement documentation (SDI oriented) shall be made available twice during the test period. Other documentation is described under Objective #2.

1.5 Test file internally (Product 2.5)

After a substantial protion of the file has been loaded, a series of internal tests shall be run to validate the use of the controlled vocabulary, the accuracy of information field entries and the general retrieval capability. The final product of this testing period shall be the Test File (Product 2.5).

As will be noted in the timeline presented earlier, the basic activities outlined above vary with content options. For Options #1 and #2, these activities leading to a testable file take eleven months; Option #3, nineteen months because of the policy issues that must be cleared before acquiring commercial materials, and Option #4, twenty-seven months since an entire design phase must precede development of a human resource file.

Objective #2 Conduct Pilot Test

Purpose of the Pilot *Test*. This pilot test is an intensive try-out of the preliminary form of the Education Practice (EP) File to provide the basis for modifications through a systematic evaluation by a sample of potential users. The pilot test will examine feasibility of the EP file in terms of feedback from and performance of a small but representative group of users through primary access sites.

(1) To get professional/practitioner reactions to the dissemination of the EP file (programs and practices)

(2) To seek opinions and suggestions regarding usefulness of the EP file, its ease of use/accessibility, and its relative worth in terms of other available access channels

The scope of this pilot test, with computer retrieval access in a minimum of 12 primary sites, locates a set of programs/practices to be disseminated in cooperation with local school system clients. Thus, the pilot test will examine utility of the file for disseminating programs/practices. The evaluation of the EP file will test the standardized format developed by BRS for the file collection and suggest modifications to existing files of curriculum and programs in primary sites through the addition of the EP file as a resource complementary to other search activities they may already be using.

Coordination of the configuration of sites would be accomplished through support services, such as training and consultation, from the BRS staff and the Merrimack Education Center (MEC). This emphasis on coordination is intended to maximize the usefulness of the evaluative data and feedback gathered from the sites in the planning of the EP file and its operational characteristics.

The pilot test can be summed up by a series of questions:

(1) What difference will the program/practice file make if it is added to the current primary site holdings?

(2) What reasonably can be expected if the EP file is expanded over the next several years and what modifications are suggested?

(3) What will happen at the primary sites that would not have happened in the absence of the EP file?

(4) What strategies used by the primary site appears to work *best in disseminating the EP file?*

(5) Is the new EP file adequately represented by support materials (e.g., adequacy of thesaurus, etc.)?

(6) What effects, if any, are determined as a result of the placement of the EP file in a primary site?

- *increases the level of resource use*
- *alters the resource mix (file options)*
- *affects the existing search and negotiation process*
- *potential for impacting the practice level of the school*

(7) What are the costs of this system (direct) as compared to other ERIC-like information systems?

(8) Is the language of the practice file easily understood by the user/practitioner?

Expected Outcomes

For example, a center might want to get greater utilization by existing users. Or, they might want to increase the capacity of the organization to offer service and as a result improve the training component of the center. A primary center might want to be able to provide greater marketing strength through market segmentation and selective products that can go out to users. They might want to see if they could lower cost of services or at least expand services without adding cost. We might, as a result of the practice file, be able to think of user systems in a different way. Instead of thinking of it as

perhaps students, teachers, administrators, and organizations, we might come up with a new framework of viewing the market that would include such things as organizations, committees, associations, unions, and buildings looking differently at this system because you're now dealing with practice files. A primary site might be able to build a greater two-way communication between its organization and users.

Activities for the Pilot Test

2.1 Select a sample population for participation *in the field test*

2.2 Train participants in appropriate use of *the file*

2.3 Implement a pilot test of the education *practice file in the primary sites chosen*

Activity 2.1: Select a sample population for participation.

The pilot test would develop a network of primary sites that are autonomous information/service centers each of which would have delivery functions designed to facilitate access to the EP file. Each of these sites would develop a service plan/agreement, based upon planned variations of services to improve client access to the EP files in a unique way.

All participating primary sites and their affiliated users would be coordinated through the use of identical procedures with regard to support from the project staff. The autonomous sites would receive support from the project through written service agreements that would include access to the EPF, commumications and offline printing. Each participating site commits a portion of in-kind, local resources to the overall operations of the field test. In return for access to the EPF and ERIC (commercial value estimated at $3,000-$6,000), the local site would commit

itself to make specific services available to its clients (or new referred users from the pilot test staff). The primary site then collects and transmits data about its activities to the pilot test staff. This arrangement permits the utilization of a variety of existing agencies, thus adapting the EP file to current community/state resources. The following table illustrates the types of sites/centers to be considered for this pilot test and an example of each.

Site Categories

	REPRESENTS	TYPE
2 Rx's	5 Multistate Regional Exchanges	G E N E R A L
2 SEAs	23 State Capacity Building Projects (SEA-based with resource and linkage components)	
2 ISA (RESA)	Substate information and service centers; county and intermediate agencies	
1 ERIC Clearinghouse 1 Information Broker	17 ERIC Clearinghouses State-based regional information material services (housed at EIC, Prise, etc.)	Individual Agency
0 *	American Association of Colleges Professional Associations CSSO	Homogeneous
1 NEA 1 AASA	NEA, AFT AASA etc.	Clusters within/ across agencies
2 Teacher Centers	Colleges and Universities LEA - Urban	Hetero-geneous

*These agencies will be kept informed of the pilot test developments.

Sites will be selected to represent different geographic characteristics and a variety of users. Consideration will be given to sites that can show evidence of:

- Educational information services offered to practitioners
- ERIC system, on-line searching of ERIC/NIMIS, etc.
- Some evidence of information management and dissemination capabilities

Target markets are broadly defined and decision makers will be identified through log data kept at the primary sites. The program and practice file (EP file) will be addressed to broad market groups including the following:

- LEA support personnel and practitioners
- Regional support personnel (substate regions)
- SEA support personnel
- Members of State/Federal projects such as bilingual, Title I, and Title IV-C
- Professional association members (ASCD, NCTE, IRA, etc.)
- Teacher Center personnel

A sampling of sites for this pilot test will be contacted from those already expressing interest in the project; these individuals will be contacted by letter and asked to use and evaluate the operational program file located at the primary site. Additional sites will be contacted in order to provide geographic and organizational representativeness. In the first stage of the process, the selection process, the following steps will be utilized:

NOTE: BRS considered including a list of all agencies that have already expressed an interest thus far, but decided against it so as not to bias readers based in the unsolicited offerings for participation which vary considerably in detail and scope. The decision to wait will thus allow decisions based on the uniform request for the information shown above.

Selection Process

- Letters received
- Follow-up letters to those organizations that represent target audience mix
  - --request additional information
  - --screen
  - --telephone interview
- Confirming letter to sites selected
- Preliminary questionnaire completed by sites

Preliminary Questionnaire. At each primary site a pilot test information manager is identified who completes a history questionnaire for that agency. This person responds to the questionnaire and a telephone interview by the pilot test coordinator responding to questions contained in an interview outline. The preliminary questionnaire should identify the types of programs, services, and resources offered at the primary site and the capability of the organization/agency to deliver the practice file.

Each subject site completes a form by mail, identifying site capabilities, present programs and services, current role in working with LEAs, current knowledge of dissemination programs need for products and knowledge about practices/programs.

PRELIMINARY QUESTIONNAIRE

1. Describe the current operations of your agency.
   - Facilities
   - Personnel
   - Current Programs
   - Resource Information Bank
   - Funding Levels--Sources
2. Linkage between resources and clients.
   - Linkage to Resources
   - Linkage to Clients
   - Internal Linkage within the Organization
3. What problem-solving strategy might be in place (are they using)?
   - Models
   - Style
   - Organization (private/public, what is their governmental relationship, do they use field agents)
4. What equipment is available at the primary site (hardware) and what training have staff received previously?

These four areas should give us some estimation of the degree of capacity with which sites would operate. At the initial stages of identifying the pilot sites, we could ask these people to submit to us a brief capability statement, three or four pages in length, that includes these items. This would give us some background on their sites and staff. We would also request some demographic information relative to their location, addresses, telephone numbers, clients served, etc.

Market Targets Identified.

- *Number and kinds of potential clients*
- *Number and kinds of predicted clients*
- *Types of users (to be maintained in log data)*
- *Broad client categories that may differentiate the market*

Consideration was given to a number of sites as secondary centers and providing them with a password. This was ruled out because it was felt that they would dilute the evaluation. They will be put in contact with a primary site from their respective area if they want to access the file. Consideration could be given to these centers as potential sites for access at a later date.

Service Agreements Developed. Primary sites will be asked to describe how they use the EP file and to indicate various reactions to it. The only restriction placed on the use of the file is that each site will be limited to a six-month use, (approximately 10 hours per month) and agree to provide feedback data on use of the file. Site strategies for this operational field test will be written into the service agreements. The service agreement can be thought of as a marketing plan. Suggested items to go into the service agreement form to be mailed out prior to the two-day training workshop include:

- *Users to be serviced (estimated)*
- *Marketing strategies proposed*
- *Means and procedures for contacting clients*
- *How client/user accesses the file*

- *Agreement to log data and submit evaluation forms*
- *Consultants and resource people available at the primary sites (in-kind resources)*

Cooperatively with the pilot test staff through a planning session at the two-day conference, each primary site will determine strategies for local dissemination and identify the strategies to go into their service agreements.

(1) Any special packaging considerations locally

(2) Any special service considerations

(3) Any special training considerations for primary site staff

(4) Any special promotion considerations

(5) Any special distribution considerations (outreach/publicity) and source documentation

(6) Access options for those primary sites that do not have necessary in-house technical skills for computer retrieval

The information manager for the primary site submits the contract by the end of the two-day training session and it is refined with pilot test staff. Upon receipt of a completed service agreement, passwords are issued. Beginning with the initial release of the password codes assigned to the primary sites, the information managers implement their unique considerations for the "marketing plans" locally.

Activity 2.2: Training Activities

The BRS project staff provide access to content information about the file through training experiences and will provide demonstrations as necessary for training. Activities will take place at a conference center (e.g., Chicago) and at primary center sites. Inservice training experiences are offered through a monitoring of service agreements that are established with primary sites by telephone or through on-site visitations. Project staff will interact with appropriate test site staff for orientation. Subsequent contacts will be made by phone or in person by visits from test site personnel or evaluators.

Product Support Materials. The pilot network coordinator will consult with project staff on the kinds of promotion, advertising, and awareness to be developed. Products to implement this technical assistance component will also be made available.

- *Brochure, "How to use the Education Practice File"*
- *Descriptive fliers*
- Training packets
- User products (SDI)
- Other implementation aids as necessary (e.g., standardized search form)

Training packet development and other activities to support the conference and in-field activities will be the mutual responsibility of BRS and the pilot network coordinator. These items include responses to requests for planning information, preparing briefings and conference presentations, and preparation of brochures and other literature for outreach.

Training packets contain:

- *General information on project*
- *Rationale for project and commitments/ responsibilities*
- *Expectations, functions, and activities*
- *Specific instructions on logging data and on use of search request forms and submitting evaluation data*

Field test staff will assist BRS in developing specific information packages and providing training for participants in the test file. These support services are made available to the sites to assist them in dissemination. Two days of training will be built around the role expectations and functions as outlined on the following page:

ROLE EXPECTATIONS AND FUNCTIONS OF PRIMARY SITES

Expectations:

Increase public awareness of the existence of educational practice file and source documents

- provide publicity, awareness, broadcast dissemination, spread of information

Increase the access to and the utilization of the EP file for existing and potential users (clients)

Provide reports and maintain logs, records, and information related to activities and utilization of the file at the primary site

Provide reports about needs that will enable project staff to make useful modifications relative to potential file expansion (e.g., recommendations on file content and process)

Functions:

Maintain on-line access to EP file (resources)

- sustain agency/client relationship and cooperation

Information-giving (proactive) providing information about program

- provide accurate, up-to-date information about the education file project

Provide referrals to agencies for those inquirers who need them

- location of source document
- identification of resource for inservice training
- "direction" or "steering" to agencies

The citations/references stored in the education practice file should be identified as to their location. Referral will be provided by the information managers at the primary sites to answer inquiries and provide further information sources

Provide follow-up services to those inquirers who receive information from the practice file

- feedback and evaluation
- was referral appropriate

Outreach

- active effort to identify new clients and organizations/ associations
  - to stimulate the use of existing programs by persons not currently using them
  - to build channels for new acquisitions for EP file
  - to implement survey research for market planning

Activity 2.3: To implement a pilot test of the education practice file through consultation and technical assistance.

Programmatic Technical Assistance. On-site visits by project staff provide consultation to the primary site for the purposes of examining critical incidents, collecting case study data, and identifying concerns or constraints through problem analysis. Consultation at each site through applications of the file allows for reviewing data collection procedures, and identifying factors which aid or constrain implementation of the file.

Benefits. Agencies testing the products enjoy certain benefits and bear some responsibility to the project. The following benefits are derived from participation in the project:

- *Utility of products*
- *Having staff oriented to the use of products*
- *Exposure to resource personnel from project agencies (BRS, NEC, consultants, etc.)*
- *Technical assistance to complement their in-house capability*

Project Support Services to Sites. Primary sites receive the following:

- *Two days' training workshop for the information manager*
- *Copies of newsletters updating the listing of relevant file features through bi-monthly newsbriefs*
- *Information highlighting network development through the field test*
- *Print catalogs of sample abstracts, descriptor terms, and other support documents to be used as implementation and training aids*
- *Other user services as necessary so that queries can be answered with products, bulletins, newsletters or brochures*
- *Talent pool of information managers and practitioners as well as successful practices, research, and training programs*

- *Personalized, on-site technical assistance from project staff (on-site visit)*
- Toll free number for contacting the network coordinator
- *Password access to file*

Support will be basically provided over a eleven-month period in two phases: Phase I -- 5 months; Phase II -- 6 months (see time line).

It is anticipated that new response modes will be developed over the next twelve months. These may include ready reference, annotated bibliographies, resource packets or prepackaged general awareness packets, as well as SDI publications.

Offering Computerized Retrieval of EP File

Materials in the EP file, as well as computer access for retrieving, will be made available early on in the pilot-test to the primary sites for purposes of dissemination.

The primary sites will cooperate with the BRS staff to invite users (teachers, superintendents, principals, and other instructional staff--practitioners) to utilize the products of the project and to offer feedback. User request forms will be developed for negotiating search requests.

Procedures for Offering Computer Search Retrieval

Educational practitioners will be able to request searches from the education practice file by contacting a primary site and negotiating a computer search by submitting a request to the information manager at the primary site. A special search form will be used. The results of the computer search will be a printout which contains the citation(s) of all items in the education practice file that satisfy the search requirements. Additionally, the user will receive relevant citations from the ERIC (ED/EJ) files.

Sequence of Steps

Request for Search

Requests for searches are made on a standardized user request form or by calling the primary site

Search Performed

The search is run through the EP data base

On-line Printout

This printout from the terminal serves as a permanent record of the search strategy, length of time to perform the search, items located, and computer time used. This record is maintained as part of the log at the primary site

Computer Printout Off-line

The off-line printout contains the full citation(s) that will be sent to the participant requesting the search

Primary Center File/Log

The file will consist of a front section which is a monthly log of searches and a separate log of where the computer search is mailed

The file will be a monthly log of searches kept for the primary site. Data to be recorded will include participant's name, search topic, date of search, file(s) searched, number of citations/items retrieved, cross reference to agency

Each search is assigned a reference number in chronological order within the subfile for searches of the EP file

Participant User

The participant will receive the computer printout through the mail with an evaluation form for feedback. The turn-around time from submitting a request to receiving the printout will be a maximum of seven to eight working days

Based on the self-described search profile, information is tailored to a given needs set (e.g., those individuals in need of instructional practices). This represents valuable needs data that can be stored and processed for recommendations for file expansion.

The BRS and pilot test staff will provide necessary requirements to install, service, and monitor the use of the education practice file and products. MEC is prepared to assist in the installation, operation, service of the education practice file, and the pilot test staff will serve as liaison where appropriate in translating site requirements or interpreting any technical difficulties that might arise. Assistance with the installation and maintenance throughout the pilot test will include an 800 telephone line (WATS).

The pilot test staff will consult with primary sites on how the EP file is used, by whom, and with what effectiveness. The primary sites will receive specific instructions to evaluate use of the product, complete with logs and questionnaires, from Ron Szczypkowski. The pilot network coordinator will work with the primary sites to determine how easily the schools can learn about, obtain, and use the practice file, and the availability of different aspects of the file, the source documents and training requirements. Assistance from the pilot coordinator will be provided to the project evaluator with data collection from each primary site and in gathering basic information about clients/users.

Implications of the Pilot Test

The operational pilot test should serve to identify all major trianing requirements for installation of the EP file. This is consistent with Hood's statement: "A delivery system for the output of educational R&D cannot avoid a concern with providing services to schools but should avoid those that perpetuate a dependence for continued service." Referral procedures will be established to assist clients in locating sites that can provide maintenance of this inservice assistance.

The pilot test can provide estimates of the quantity of service needed from the developer to support satisfactory levels of impact.

Particular market features can also be assessed during the pilot test. These include demand analysis, potential amount of demand, and other market factors that can be determined through observation or evaluation surveys.

Each site will have unique organizational and delivery mechanisms indigenous to its specific structure and governance. Therefore, each site should be examined through a case study approach to draw interferences for necessary networking configurations in the ultimate educational practice file.

Comparisons across diverse sites, using different implementation strategies, will provide study and application considerations. As the pilot test is implemented and evaluated it will be critical that this examination address a number of related dissemination questions. Some of these considerations that relate to continuing and sustaining the education practice file include:

Other Considerations for the Pilot Test

- *Examining various techniques for contacting and motivating potential program file users*
- *Effective liaisons with secondary and affiliated sites or other intermediate agencies and professional associations*
- *Assisting the primary sites in carrying the message to school consumers and practitioners (ASCD, NCTE, etc.)*
- *Assisting primary sites in defining target users and employing directed strategies for contacting them*

Objective #3 Evaluate System Development, Implementation Process, and Output of the Practice File

Rationale for Evaluation

As described in the RFP, the National Educational Practice File Project is characterized by both process and outcome objectives ultimately aimed at developing and refining an improved educational information system which will (1.) facilitate maximum use by educational practitioners; (2.) improve the organizational ability of educational information systems, and (3.) improve the identification and dissemination of sound educational practices among various groups of users. To accomplish these ends, communication, agreements, interrelationships, new skills and understandings, and behavioral changes must be accomplished within a network of individuals representing different organizations and agencies and characterized by varying roles and responsibilities.

The achievement of a demonstration project's objectives which seek to initiate and institutionalize comprehensive changes requires systematic monitoring and feedback procedures. The rationale upon which the evaluation procedures in this proposal are based is that evaluation is an integral part of a project's development, provides objective data as a means for ongoing decision-making, and ensures the linkage and documentation of project processes and outcomes.

Michael Scriven and Malcolm Provus are among the many educational researchers who have written extensively on the intimate relationship between evaluation, research, program design, and program development.[1] This view of evaluation holds that an analysis of the process aspects of a program in light of their relationship to specified outcomes is integral, both for meaningful assessment and ongoing decision-making. Quality control of a project requires the establishment of procedures to monitor and modify processes to ensure outcomes that meet acceptable standards.

The task of evaluators of a developing program is thus twofold: (1.) to provide objective documentation and analysis of that development; (2.) to collaborate with the developers so that evaluative data are used within a framework of facilitative decision-making. Information must be generated which can be used to make judgements about a project while it is in its dynamic stages of growth. This requires an evaluation model that ensures comprehensive and systematic data classification and comparisons, and which will yield accurate and reliable data as the basis for ongoing decisions.

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[1] Michael Scriven, "The Concept of Evaluation" in Evaluation: Analysis and Responsibility by Apple et.al., Berkeley, California: McCutchan Publishing Corporation, 1974. Malcolm Provus, Discrepancy Evaluation, Berkeley, California: McCutchan Publishing Corporation, 1974.

The overall evaluation of the National Education Practice File encompasses two distinct types of evaluation strategies: (1.) formative project monitoring, and (2.) summative assessment measures. As applied to developing programs, these two evaluation approaches may be briefly defined as follows:

Formative evaluation is concerned with monitoring and improving a developing program while it is being carried out. This type of evaluation attempts to assess the early stages of a project. Specifically, formative evaluation strategies allow key decision makers to take corrective action to arrest malfunctioning in the formative stages of developing and "debugging" an innovative practice or program. Hence, the evaluation at this stage of development is designed to determine in process how well each element in the system is working (i.e. is each critical part (element) carrying its own weight?). As is discussed in detail in the following sections of this proposal, the Discrepancy Model advocated by Stake and Provus will be utilized to identify discrepancies between intentions and actual results obtained from objective assessment measures.[1, 2]

In contrast to formative evaluation, summative evaluation procedures focus on the developed program. Here, final outcomes are compared to baseline data regarding the conditions which are antecedent to the project's existence. This type of evaluation helps answer the question: "Did the developed program make a difference?"

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[1] Provus, Malcolm, Discrepancy Evaluation Model, Pittsburgh Public School, Pittsburgh, PA., 1969.

[2] Robert Stake, "The Countenance of Educational Evaluation", Teachers College Record, 68': 1967.

The summative evaluation design expected to be utilized in the project as outlined in the next section, will incorporate rigorous data collection and analytical techniques focusing on the outcomes of the National Educational Practice File in systemic, as well as user/practitioners terms. Throughout this stage of project evaluation, the principle of convergent validity will be employed to provide greater precision in the measurement and analysis of program effects especially as they relate to user outcomes. That is, data collected by one procedure may not be sufficiently reliable or valid by itself to offer convincing proof that the data is indeed an accurate reflection of a phenomenon. Therefore, an attempt will be made to provide additional data collected by another objective procedure to corroborate promising, but somewhat weak evidence acquired in accordance with evaluation design procedures outlined in this proposal.

Before elaborating the formative and summative evaluation strategies to be employed in Phase II of the project, a few brief remarks should be addressed to the issue of evaluation responsibility.

As stated in the RFP, the Educational Practice File emerging from Phase II of the File Development Project is intended to provide a model for the identification and dissemination of sound educational practices among practitioners. Should this file be demonstrated to be effective, it will most likely serve as a prototype for the ultimate development of a

comprehensive national educational practice information system. It is of critical importance, therefore, that the evaluation of this project be of high quality and include not only summative assessment of the achievement of project objectives, but also reliable and ongoing "debugging" procedures.

Under these circumstances, it appears most beneficial to place the responsibility for project evaluation in the hands of specialists who, not bearing responsibility for actual program development, will be able to conduct the evaluation in an unencumbered and objective fashion, and contribute "outside" explicit advice on correcting malfunctioning.

Consultants from Magi Education Services of Port Chester, New York have been selected to perform this role. This decision to ask independent consultants to conduct the evaluation was carefully arrived at for the following reasons:

1. The scope of the File Development Project, which includes multiple components and file feature options will require extensive feedback on how well each of these components and features are developing. An independent evaluator can gather the critical information, in an objective and appropriate manner, which the project director and NIE require in order to make timely decisions to correct malfunctioning in any of the file system features.

2. The consultants selected have an outstanding reputation as well as national experience evaluating diverse educational programs which will undoubtedly be very helpful in the planning, development and implementation of this model program. Most noteworthy is the fact that Dr. Szczypkowski, President of Magi is a specialist in dissemination of educational practice and information and has developed a number of models with relevance to the File Development Project.

3. The proposed evaluation consultants have the capability of developing the instruments and measuring devices necessary to evaluate the many unique and complex aspects of the Educational Practice File.

4. Most important of all, the consultants, by virtue of extensive experience in the evaluation of educational programs, have a proven capacity to integrate evaluation information with ongoing decision-making in a practical and very clear manner.

GENERAL EVALUATION DESIGN

Theoretical Framework

The theoretical framework for classifying evaluative data associated with the progress of the National Education Practice File Project is a Discrepancy Model. This model is an adaptation of elements central to the research of Stake and Provus[3] and provides for systematic and extensive description and analysis of the disparate elements of a project over time.

As can be seen on the following page, the Discrepancy Model consists of a series of separate stages which may be briefly described as follows:

The Antecedent Conditions Stage provides for the documentation of baseline conditions and procedures associated with the system which a project purports to change or replace - in this case, the ability of pilot-site information managers to identify educational practices and facilitate their use with educational practitioners. Data is obtained through questionnaires, interview schedules, and observations when appropriate. Then a systematic examination of the tangible evidence of the system - in this case, the pre-existing educational information system is described and documented.

The Design Stage focuses upon the planning specifications for a project with respect to major goals and strategies. The perceptions of major project participants regarding the significance of projected outcomes and

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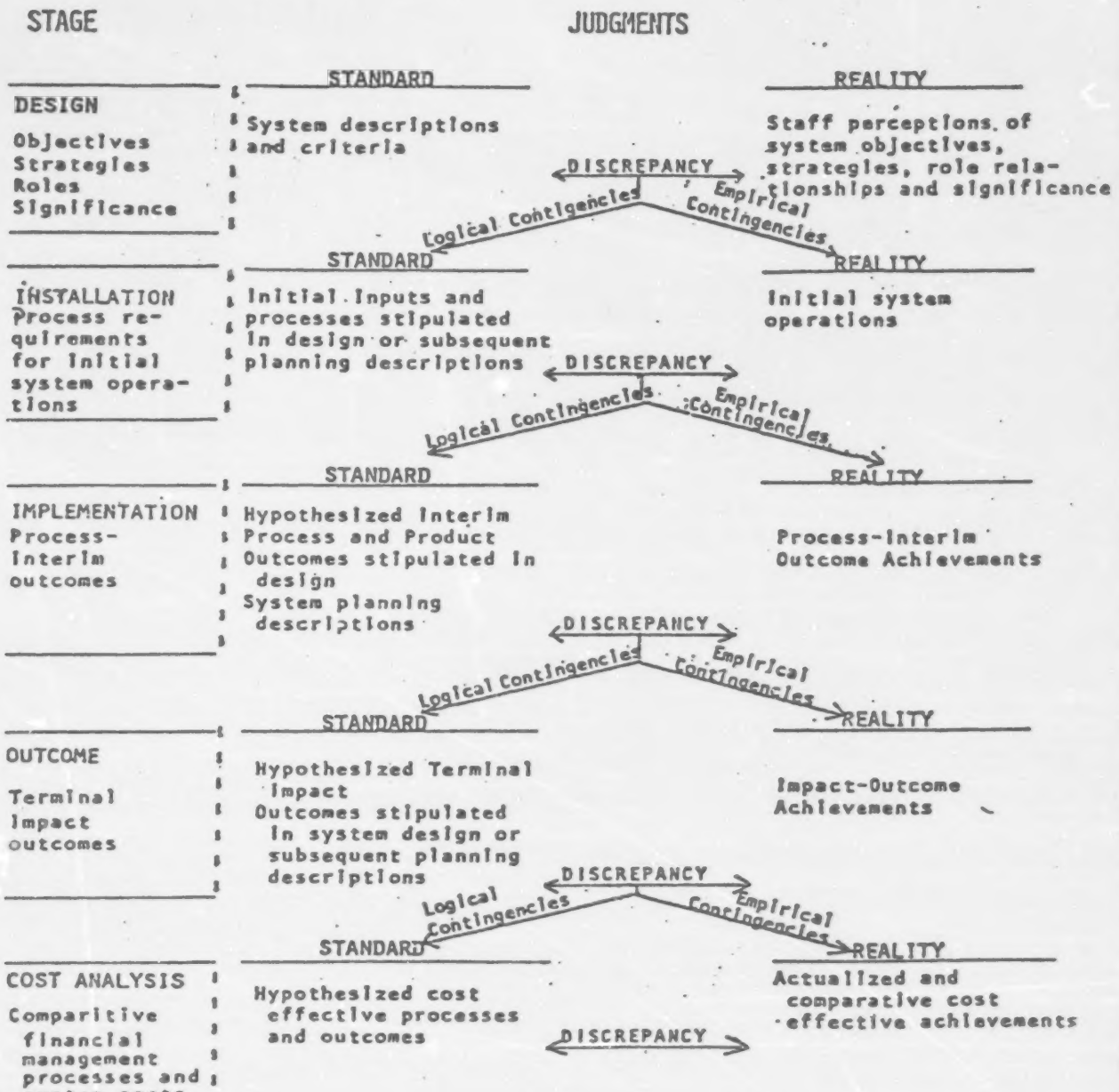
[3] Stake, op. cit.; Provus, op. cit.

DISCREPANCY MODEL

ANTECEDENT CONDITIONS

Baseline Data Prior To System Implementation



strategies are determined. The STANDARD, which consists of Proposal Descriptions, is compared to the REALITY of actual perceptions of project purposes, strategies, and significance. Comparative data are obtained through interviews with all project principals. Discrepancies between the intents stated in the project's proposal and sampled responses to the intents of the project are identified. Also identified are response patterns that may have contingent effects upon the progress of the project.

The Installation Stage focuses primarily upon process requirements necessary to initiate project operations at all levels. INSTALLATION STANDARDS, or inputs and processes stipulated in the project proposal or subsequent staff planning descriptions, are compared to the REALITY of initial program operations. Monitoring of the project's pacing and procedural adequacies are accomplished through interview, observation, and questionnaire procedures. Data analysis focuses upon discrepancies between STANDARD and REALITY, as well as the effects that discrepancies have upon subsequent processes.

The Implementation Stage compares the STANDARD of hypothesized process and product outcomes to the REALITY of those process and interim outcome objectives which are actually achieved. Formative evaluation includes the use of questionnaires, interviews, observations and various statistical procedures. Data analysis focuses upon discrepancies between the STANDARD AND REALITY, what continent effects the discrepancies have upon subsequent process objectives and the terminal outcomes, emergent needs and objectives, and possible alternatives.

The Outcome Stage compares the STANDARD of hypothesized Terminal Outcomes to the REALITY of actual outcome achievement. Questionnaire, interview and observational procedures, as well as various statistical methods are used to determine the relationships between Intended Outcomes and Achieved Outcomes. Discrepancies are analyzed, and judgements are made about future needs and objectives.

Cost Analysis compares the STANDARD of hypothesized cost-effective processes and outcomes to the REALITY of actualized cost-effective processes and outcomes. Comparisons are made between antecedent financial management processes and costs, and financial management processes and costs which are directly associated with the institutionalization of the project.

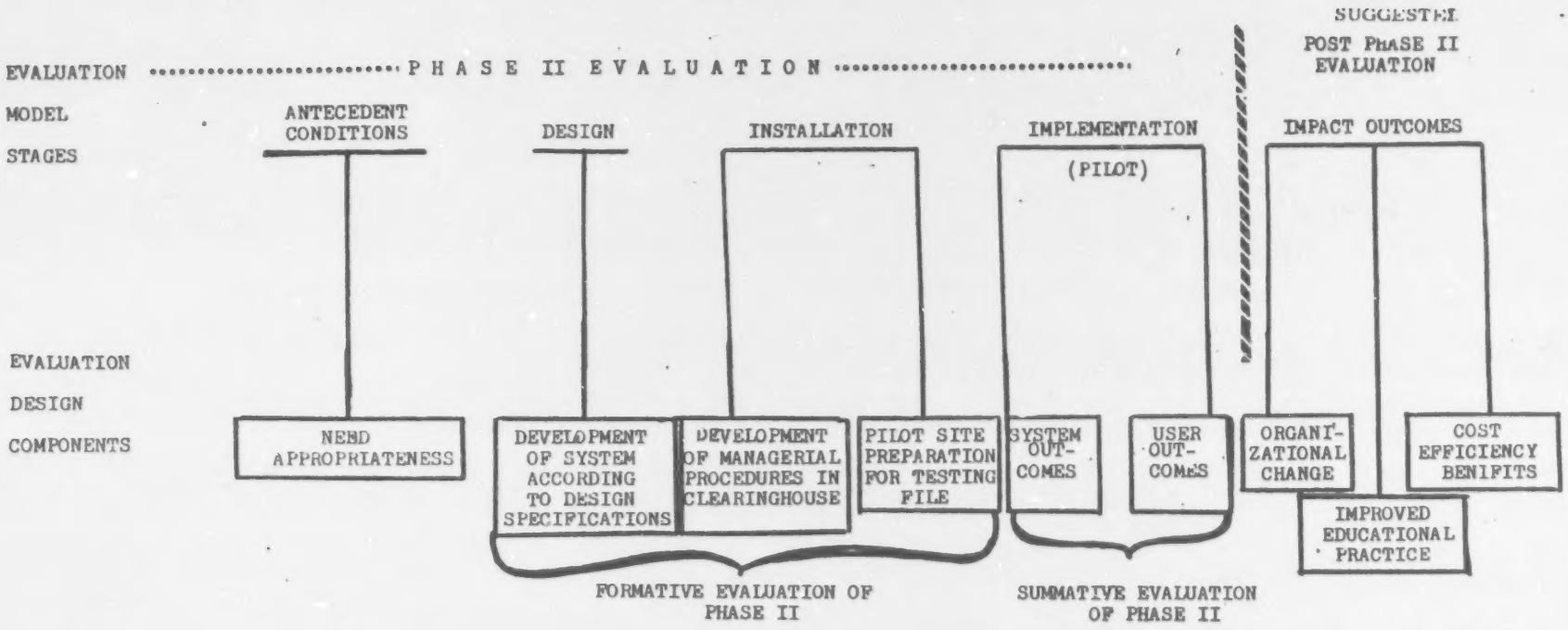
This model thus provides a comprehensive and systematic framework for collecting, classifying and analyzing evaluative data throughout the entire span of a project's development and implementation (i.e. from pre-development conditions to ultimate impact outcomes).

Organization of Evaluation Design

In order to be successfully applied to any specific program or project, each stage of the Discrepancy Model must be clearly linked to a given set of desired goals or outcomes, which are regarded as specific evaluation design components. Together, these components form an organizational whole from which evaluation activities flow and take on meaning.

Figure 2 on the following page presents the organization of the evaluation design which will be applied to the National Educational Practice File Development Project. Before turning to the design itself, however, it is most important to stress that, at the time of this writing, the Phase II version of the educational practice file which will be developed has not yet been determined. Thus, all relevant measures to be incorporated in the project's evaluation design are unable to be precisely specified at present. Clearly, a key evaluation task during the first two months of Phase II will be to determine, by means of structured interviews with all relevant individuals and groups, including the NIE Internal Advisory Committee, the specific issues and variables to be included in the final evaluation design. In the evaluation of any large-scale, change-oriented program such as the Practice File Development Project there are always many more issues than can reasonably be addressed. In selecting those to be addressed within this project, the evaluators will be guided by the continuous input of the project staff, the NIE Internal Advisory Committee, and the Project Advisory Group.

ORGANIZATION OF EVALUATION DESIGN



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What follows in this section of the proposal, then, is a preliminary evaluation design based on the RFP, the products produced to date by the contractor, and the most recent reaction to those products from the advisory committees. As presented in the chart entitled "Organization of Evaluation Design", this design may be briefly described as follows:

The Antecedent Conditions relevant to the project will be assessed primarily in terms of the degree to which appropriate needs for such an educational practice information file are indicated. Clearly, much of this information is already available through such sources as The Educational Information Market Study,[4] the RFP for the Practice File Development Project, as well as existing research studies on user needs related to ERIC and related information systems and Products 1.1 and 1.2 of this project. Each of these will be combed in detail, and the data yielded will be supplemented as necessary through questionnaires and interviews with relevant parties. While the data regarding need appropriateness are collected at the outset of the evaluation effort, their significance lies in the comparisons they allow between pre-and post-file conditions. Thus, this design component is actually incorporated much later in the total evaluation scheme.

The key goal of the project's Design stage is the construction of a prototype Practice File according to design specifications resulting from the products which have been produced during Phase I (particularly Product 1.4, 1.5 and 1.6).

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[4] Paul D. Hood and Laird Blackwell, The Educational Information Market Study, Vol. I., (San Francisco, California: Far West Laboratory, October, 1976).

Consensus among relevant parties of file requirements will be finalized during the early months of Phase II. Thus, the evaluation effort at this stage focuses on the formative monitoring of the file features as they are developed.

In the Installation stage, two major outcomes are involved, both of which are basic prerequisites for eventual implementation of the educational practice file: (1.) the development of effective procedures within the file clearinghouse creating and managing the educational practice file, and (2.) the preparation of the pilot sites and other file system components for testing. Included in this latter outcome are physical pilot site preparation (facilities and equipment), training of relevant personnel, and preparation and/or recruitment of file users through general publicity and orientation programs. Each of these design components requires ongoing monitoring and together form the content of the evaluation effort during this stage.

The Implementation stage of the File Development Project comprises the actual testing of the file at selected pilot sites. The goals of this pilot test are the achievement of positive outcomes regarding both the file system itself (e.g. technical feasibility, all relevant file features of construction costs, amount of effort, turn-around time, accuracy, reliability, timeliness, accessibility, etc.), and in terms of maximum user utility (e.g. frequency of use, satisfaction, relevancy, etc.). Thus, the evaluation at this stage focuses on the assessment of these outcomes. Comparisons are then made between these data and those concerning antecedent conditions, in order to determine the pilot test effects.

The remaining stages of the Discrepancy Model which are suggested as Post Phase II activities, are grouped into a general Impact/Outcome stage. The outcomes of this stage of the File Development Project are viewed in fairly broad terms, focusing on positive changes within the present system of educational information dissemination (e.g. creation of additional linkages between pilot site organization and other relevant producer and user agencies); the institutionalization of improved educational practices; and a series of cost efficiency benefits. Following extended implementation of the Education Practice File, each of these outcomes can be measured again in both systemic and user/practitioner teams.

This overall evaluation design is intended to be applied along the continuum of project development. Specifically, the first four stages of the evaluation model - Antecedent Condition, Design, Installation, and Implementation - will be applied during Phase II of the File Development Project. The outcomes within the first three of these are the content of the formative evaluation of Phase II, while those pertaining to the Implementation stage are the summative evaluation focus. The following portion of this proposal describes both of these evaluation approaches in specific terms.

The Impact Outcomes suggested as a post-Phase II evaluation stage are not specifically discussed in the proposal. They are, however, integrally related to the File Development Projects' Phase II activities, and should be borne in mind as long-range project goals which will eventually require systematic assessment.

PHASE II EVALUATION PLAN

As outlined in the preceding section, the evaluation of Phase II of the National Educational Practice File Development Project incorporates both formative and summative approaches. Here, both of these are specifically described in terms of the key project variables to be measured as well as the methods of assessment to be employed for each.

Formative Project Monitoring

Phase II of the Educational Practice File Development Project focuses on the development and pilot testing of the file. The evaluation of this effort requires comprehensive and systematic procedures which provide for extensive process documentation, objective and relevant analysis, timely feedback, and facilitative collaboration among all parties involved in Phase II functions.

During Phase I of the project, the contractor developed a number of products as preparation for work to be completed during Phase II. Product 1.6, the file design, synthesizes previous products and expands upon the design to be implemented during this phase. This product includes the description and preliminary specifications and procedures for the Educational Practice File.

The evaluation staff shall monitor the implementation of all critical aspects of the Educational Practice File Design throughout Phase II. This will be accomplished through ongoing observations, systematic interviews and questionnaires, as well as regular visits to the central file clearinghouse and

the pilot sites to review project records and documents (Project Log). The evaluation focus in this stage will primarily involve assessing the project's progress toward the achievement of intended outcomes, and "debugging" the system of whatever problems arise in this effort.

Formative project monitoring will occur within both the Design and Installation stages of the overall evaluation model. It will be organized around two distinct tasks. First, using the three evaluation design components identified within the Design and Installation stages, specific indicators of each will be empirically assessed. These indicators are defined in the following chart:

A (DESIGN STAGE OUTCOME) EPF System Development and Implementation	B (INSTALLATION STAGE OUTCOMES) Development of Effective Managerial Procedures	C (INSTALLATION STAGE OUTCOMES) Pilot Site Preparation Including Training of Pilot Site and Central Clearinghouse Personnel and User Preparation
1. Level of Effort	1. Existence of Managerial Plan	1. Availability of Minimum Facilities and Equipment
2. Pace of Effort	2. Participation and understanding of EPF Project by relevant parties	2. Scope of Training
3. Documentation	3. Performance Standards	3. Intensity of Training
4. Scope of Application		4. Effectiveness of Training
5. Legality		5. User preparation through general publicity and orientation programs
6. Reliability		
7. Audit Trails		
8. Transferability		

Assessment measures for the various factors associated with these indicators are shown on the following pages. Monitoring data shall be reported to the Project Director in monthly monitoring briefs and Quarterly Monitoring Reports.

FORMATIVE PROJECT MONITORING

MONITORING INDICATORS	METHODS OF ASSESSMENT		
	On-Site Observation	Interviews and Questionnaires	Review Records or Documents (Log)
I. EPF SYSTEM DEVELOPMENT AND IMPLEMENTATION			
1. Level of Effort			
a) Problem identification and resolution	X		
b) Sufficient quality of staff and person-hours to accomplish tasks	X	X	
c) Staff organized effectively			
1. Central Clearinghouse	X		
2. Pilot site	X		
2. Pace of Effort			
a) Task thoroughly planned and sequenced (Timelines)			X
b) Accomplishment of tasks meets planned deadlines	X		X
c) Appropriate efforts made to intensify pace in response to project delays	X		
3. Documentation			
a) Systems design documented to governmental standards			X
b) Programming documented			X

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FORMATIVE PROJECT MONITORING

MONITORING INDICATORS	METHODS OF ASSESSMENT		
	On-Site Observation	Interviews and Questionnaires	Review Records or Documents (Log)
c) User guides documented			X
d) Training guides documented			X
4. Scope of Applications			
a) User information needs identified, documented and considered		X	
b) Plans made for system improvement and possible additions (updating, purge, editing)			X
5. Legality			
a) Procedures designed to insure record and data conformity with legal restrictions on information, collection, storage and dissemination			X
b) Procedures for legality properly adhered to	X		
6. Reliability			
a) Frequency and duration of computer down time			X
7. Audit Trails			
a) Procedures for data control verification defined and documented			X

FORMATIVE PROJECT MONITORING

MONITORING INDICATORS	METHODS OF ASSESSMENT		
	On-Site Observation	Interviews and Questionnaires	Review Records or Documents (Log)
b) Position designations and responsibilities of project staff and pilot site personnel for system implementation clearly defined and documented			X
c) Changes in roles, responsibilities, and functions documented			X
d) Staff skills and experience appropriate to primary responsibilities and tasks	X		
3. Performance Standards			
a) Productivity standards documented			X
b) Non-productive procedures and/or staff identified			X
c) Staff and pilot-site personnel performance and individual responsibilities standardized through training	X		X
d) Ongoing identification of staff retraining needs	X		
e) Staff acceptance of new procedures	X	X	
f) Tasks delegated to appropriate staff members	X	X	

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FORMATIVE PROJECT MONITORING

MONITORING INDICATORS	METHODS OF ASSESSMENT		
	On-Site Observation	Interviews and Questionnaires	Review Records or Documents (Log)
I. PILOT SITE PREPARATION			
1. Availability of Minimum Facilities and Equipment			
a) Adequacy of physical structure of pilot site	X		
b) Adequacy of pilot site equipment for implementing system	X		
2. Scope of Training			
a) Training content addresses staff training needs	X		
3. Intensity of Training			
a) Training content and training materials well documented			X
b) Frequency, number, and duration of training sessions	X		X
c) Training follow-up assessments and retraining sessions	X		

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MONITORING INDICATORS	METHODS OF ASSESSMENT		
	On-Site Observation	Interviews and Questionnaires	Review Records or Documents (Log)
4. Training Effectiveness and Staff Acceptance			
a) Staff understanding of duties and roles; ability to identify client goals and plan and implement effective search procedure		X	
b) Staff opinion of training sessions		X	
c) Staff objections, reservations, and suggestions		X	
d) Staff acceptance of project		X	
5. User Preparation			
a) General publicity program planned			X
b) Publicity program executed		X	X
c) User orientation program planned			X
d) User orientation program in progress		X	X

The second major formative evaluation task involves monitoring the actual proto-type file system which shall be constructed during the Design stage and tested through the Pilot implementation. This effort will focus on the ten key file features (content, acquisition, selection, processing, vocabulary development and maintenance, file maintenance, source availability, search and retrieval, user products, and user services) systematically following what is happening to each as it moves from its paper specifications (Design stage) to an actualized system component (Installation stage).

It should be stressed that this evaluation task will actually be undertaken on an ongoing basis over the entire span of the File Development Project. Specifically, at regular intervals throughout the project, a record will be made of each file feature in terms of such variables as the costs incurred in terms of money spent, the effort (person/hours) put forth, and the problems/obstacles encountered. A primary means of gathering these data will be through a Pilot Site Management Report Form which site personnel will complete on a monthly basis and file with the evaluation staff. Based on the information provided, assessments will be made as to the technical feasibility of the effort being undertaken, as well as judgements as to its compatibility with both the ongoing ERIC system and the approved standard for the Education Practice File. This information will be invaluable for later decision-making, especially as work moves beyond the pilot stage, because it will provide, in a very systematic way, a record of experience and empirical evidence needed to make the intelligent decisions which will guide all subsequent work as the file is expanded. It is also a very flexible approach which will allow experimentation and manipulation of a number of variables. For example,

through this approach the merits and capabilities of one type of "purge" and "update" operation can be compared against another type of operation. Other questions which could be addressed include whether the new Educational Practice terms should be merged with the main ERIC Thesaurus, be a separate publication, or be a supplementary chapter to the main thesaurus, or whether document delivery versus document referral is a feasible and cost-effective procedure. Whatever manipulation is desired, as long as it relates to one of the ten file features, can be accommodated by this formative evaluation approach.

In addition, the approach will assist in making summative assessments (i.e. cumulative documentation of file feature activity in terms of costs, technical feasibility and utility will allow summative judgements at end of Phase II). By adding one additional variable, "Utility", which would incorporate increased usage, user satisfaction, and ultimate use to which information was put, one can then judge the merits of one approach against another based, not only on such factors as cost effort, technical feasibility, etc., but also on whether the end product of one is used and preferred by practitioners more than the other. The "utility" variable as here defined will be measured primarily through a Search Appraisal Form which all users of the Education Practice File will be required to complete following each search request. A more in-depth analysis of the "utility" variable, as regards ultimate users/practitioners, is proposed through a tightly controlled, experimental research design, as discussed in the Summative Assessment section under the heading of Summative Design Part II.

Summative Assessment

As outlined in earlier sections of this proposal, summative evaluation procedures focus on the developed program, comparing post-implementation outcomes to baseline data in order to assess the impact or difference the program broght about. Regarding the Education Practice File Development Project, two types of outcomes have been defined: those concerning the practice file system itself, and those concerning the file user/practitioners. Both are regarded as the key evaluation design components at the project's Implementation stage, here defined as the actual pilot test of the prototype file. Thus, the summative evaluation strategy is employed during this critical stage.

The proposed strategy for summative assessment is two-fold, reflecting the two major outcomes defined above, and is outlined on the following pages as Summative Design Part I and Summative Design Part II. In approaching this overall design it should be kept clearly in mind that the primary audience intended to be served through this evaluation consists of the decision-makers who bear responsibility for moving the educational practice file from the pilot test stage through the field testing, and ultimately to full-scale implementation. The evaluation procedures proposed do not aim to provide survey-type data which can be generalized to wide populations, but rather to yield an in depth view of how the file has operated in certain key, practical aspects. The approach adopted is fundamentally that of a case study, incorporating the rigorous procedures of small sample analysis, and both qualitative and quantitative measures associated with this form of evaluation research.

Summative Design Part I

The first set of outcomes to be addressed through the evaluation centers is the design features of the education practice file system. As mentioned in the discussion of the formative project monitoring, summative assessments of each file feature will be made possible as a result of the systematic record-keeping occurring throughout the Design, Installation and Implementation stages. At the end of the pilot implementation, the formative evaluation data collected will provide a wealth of evidence on the basis of which overall assessment questions may be answered. In other words, the cumulation of data from the Pilot Site Management Report Forms will allow the Educational Practice File to be summatively viewed in terms of such things as the technical feasibility of relevant features, costs, and congruence with standards of the existing ERIC system as well as those developed for the file itself during the design stage.

In order to answer summative questions regarding certain file features, data from the completed Search Appraisal Forms will also be summated and combined analytically with file feature information. These data will be supplemented as needed with Final Assessment interviews with a sample of users, as well as with pilot site managers, key clearinghouse personnel, and selected producers of file input. In addition, characteristics of the different pilot sites selected will provide a means whereby all of these data can be analyzed according to such variables as geographic locale, predominant type of user, and selected options of file features employed in various sites.

The chart on the following pages provides examples of evaluation questions regarding each file feature to be addressed through the first stage of the summative assessment, along with a brief indication of the sources of empirical evidence which will be used to answer each question.

Once again, it should be stressed that these questions are, at the time of the present writing, merely illustrative of the evaluation approach which will be taken, and should not be interpreted as a final or exhaustive list of the summative issues which will be addressed. The development of such a list will occur only after detailed consultation with the relevant personnel involved at each level (Project Staff, representatives of NIE, and members of the advisory committees) during the early months of Phase II.

While answers to many of these summative questions clearly lie in the "hard data" to be collected, others will require that a value decision be made. It should be stressed that in each such case, the standard or value to be applied will be that arrived at by the contractor during the project's initial design phase.

FILE FEATURE	QUESTIONS	SOURCE OF EVIDENCE *
I. CONTENT	1) How much overlap exists between Educational Practice File input and ERIC input?	1) Evaluators' content analysis of final file entires and comparable ERIC files
	2) Are the unique content features of Educational Practice File, as identified above, cost-effective when measured vs. frequency of use and user satisfaction?	2) Pilot Site Management Report Forms (cumulated); Search Appraisal Forms (cumulated; Final Assessment Interviews with users and pilot site manager.
	3) Are certain entries in the overall scope of content included significantly related to frequency of use and user satisfaction?	3) Search Appraisal Forms (cumulated);Final Assessment Interviews with users
	4) Does frequency of use and user satisfaction warrant including all types of input (validated programs, locally developed, commercial)?	4) Search Appraisal Forms (cumulated);Final Assessment Interviews with users
II. ACQUISITIONS	1) What are the overall per document costs associated with acquiring up-to-date file input?	1) Pilot Site Management Report Forms (cumulated cost information) Pilot Site Management Report Form (cumulated)
	2) What problems (time-lag, excessive costs, policy) associated with the acquisition of different types of file input (validated programs, locally developed, commercial)?	2) Final Assessment Interviews with clearinghouse personnel and selected producers
	3) What are the characteristics of successful acquisitions of each type? (specifically addressing issue of producer motivation)	3) Final Assessment Interviews with clearinghouse personnel and selected producers
	4) Are there conflicting elements between Educational Practice File and ERIC regarding acquisitions?	4) Final Assessment Interviews with clearinghouse personnel and selected producers
		* In each instance the evidence yielded will be compared against pre-set Practice File standards.

FILE FEATURE	QUESTIONS	SOURCE OF EVIDENCE
II. AQUISITIONS (continued)	5) What are the key advantages/disadvantages of obtaining file input via a simulated central clearinghouse?	5) Final Assessment Interviews with clearinghouse personnel
III. SELECTION	1) What is the relationship between evaluative information on learner outcomes and user satisfaction?	1) Search Appraisal Form (cumulated); Final Assessment Interviews with users
	2) How much congruence exists between selection criteria actually employed in Educational Practice File and that used in ERIC?	2) Evaluators' content analysis of final file entries and comparable ERIC files
IV. SOURCE AVAILABILITY	1) What is the relationship between the inclusion of source documentation and user satisfaction?	1) Search Appraisal Form (cumulated); Final Assessment Interviews with users
V. PROCESSING	1) What is the relationship between the inclusion of the searchable fields which supplement current ERIC fields and user satisfaction? (especially inclusion of contact person)?	1) Search Appraisal Form (cumulated); Final Assessment Interviews with users
	2) Does inclusion of any of these additional searchable fields present significant problems to input producers/ contact persons?	2) Final Assessment Interviews with selected producers
VI. FI MAINTAINENCE	1) How much maintainence is needed to keep the Educational Practice File current?	1) Evaluators' analysis of post-pilot file entries for accuracy

FILE FEATURE	QUESTIONS	SOURCE OF EVIDENCE
VI. FILE MAINTAINENCE (continued)	2) What are the costs of keeping the file current?	2) Final Assessment interviews with clearinghouse personnel; cumulated cost information on maintainence.
	3) Is perceived currency related to user satisfaction?	3) Search Appraisal Forms (cumulated); Pilot Site Management Report Forms (cumulated; Final Assessment Interviews with users.
VII. VOCABULARY	1) What is the most effective way to access the Educational Practice File (merge the Educational Practice terms with the existing ERIC Thesaurus, put in separate document, or as supplementary chapter to main thesaurus)?	1) Search Appraisal Forms (cumulated); Pilot Site Management Report Forms (cumulated; Final Assessment Interviews with users, pilot site managers and clearing-house personnel.
	2) Can user needs be easily translated into searchable fields?	2) Final Assessment Interviews with clearinghouse personnel
	3) How compatible/useful is Annehurst Curriculum Classification System in this regard?	3) Final Assessment Interviews with clearinghouse personnel
VIII. SEARCH AND RETRIVAL	1) How much congruence is there between Educational Practice File and ERIC? (re. are Educational Practice File entries searchable with ERIC?)	1) Evaluator trials; Final Assessment Interviews with clearinghouse personnel
	2) What search strategies (broad vs. tightly defined) are most effectively related to user satisfaction?	2) Search Appraisal Forms (cumulated), Final Assessment Interviews with users and pilot site managers.

TITLE FEATURE	QUESTIONS	SOURCE OF EVIDENCE
IX. USER PRODUCTS	1) What is the most effective way of communicating content of Educational Practice File to various types of users?	1) Pilot Site Management Report Form (cumulated); Final Assessment Interviews with users, pilot site management, and clearinghouse personnel
X. USER SERVICES	1) What are the characteristics of an effective general publicity and system orientation program?	1) Pilot Site Management Report Form (cumulated); Final Assessment Interviews with users, pilot site management, and clearinghouse personnel
	2) Does user interest/use warrant inclusion of an 800 (toll-free) phone number for questions about access? -outline user feedback capability	2) Search Appraisal Forms (cumulated); Final Assessment Interviews with users and pilot site managers.
	3) What are the costs of these services?	3) Pilot Site Management Report Form (cumulated cost information) Final Assessment Interviews with pilot site managers and clearinghouse personnel

Summative Design Part II

Framework and Rationale

This phase of the evaluation of the Educational Practice File (EPF) makes several key assumptions:

1. that the primary issue of this summative evaluation phase is utility of the file to educational practitioners.
2. that this summative evaluation is supplemental to a formative evaluation which has been ongoing through the entire duration of the project.
3. that in this supplemental, summative effort to evaluate the impact of the Educational Practice File on the intended population of users (educational practitioners) a close, continuous look at the actual information-seeking behavior relative of educational practitioners is essential.

The basic question flowing from the preceeding assumptions is stated as follows: DOES THE EDUCATIONAL PRACTICE FILE MAKE A DIFFERENCE TO USERS/PRACTITIONERS?

In reality, this is another way to phrase the basic question regarding utility, assuming that, to the extent that the Practice File has high utility, it will make a difference to users. The rationale for this assumption is derived from The Educational Information Market Study[5] which reported that educational practitioners do not generally view abstracted information as useful. (See Table on following page).

[5]Hood and Blackwell, Ibid.

Frequency of Use of 18 Information Sources
Based on Unweighted Averages of 14 Subaudiences
(1=Often, 2=Sometimes, 3=Rarely)[6]

ITEM	AVERAGE	RANK
Face-to-face discussion of conferences with people in my own organization	1.35	1
Notes and files in my own office	1.46	2
Educational newsletters, bulletins, announcements	1.72	3
Telephone calls to people in my own organization	1.76	4
Educational journals	1.80	5
Personal library	1.85	6
Memos and correspondence	1.87	7
Face-to-face discussion or conferences with people in other organizations	1.88	8
Telephone calls to people in other organizations	1.92	9
Library or resource center in my own organization	1.95	10
Office, department, or organization files	2.00	11
Conventions, professional association meetings	2.01	12
Workshops, seminars, graduate courses	2.06	13
Textbooks, reference books	2.08	14
Curriculum materials	2.18	15
Technical reports, government publications	2.22	16
Other libraries, resource centers, or information services	2.33	17
**** Abstracts, indexes, bibliographies	2.40	18

[6] Ibid.

Thus, the key difference sought through the development and introduction of the Educational Practice File, as regards its utility, is bringing about a different rank order of these user/practitioners' preferences, in both valuation and behavioral terms, (i.e. to yield more positive attitudes toward this form of information source, as well as increased actual usage in their work).

In order to evaluate whether this in fact has occurred, a tight, experimental research study is proposed. In developing the specifications of this study, the evaluation staff will be guided by the following specific goals: To plan a study which:

1. Allows the researcher to follow a sample of educational practitioners over a period of time (4-5 months) in order to determine if actual information use patterns change as a result of the introduction of the Educational Practice File.
2. Will allow the Project to determine what use educational practitioners make of the Educational Practice File system.
3. Allows the Project to discover what user background variables (demographic, educational, etc.) are related to the quality and quantity of Educational Practice File use by educational practitioners.
4. Allows the Project to discover if contextual variables (cost per pupil, teacher mode, state or local competency emphasis, etc.) influence the use pattern of the Educational Practice File.

5. Allows multiple independent variables (contextual as well as user variable) to be shown in their relationship to the major dependent variable - the utility of the Educational Practice File.

Research Question:

The major research question addressed by the proposed design goes directly to the issue of the difference effected by the existence of the Educational Practice File as reflected in the behavior of immediate users. This question can be stated as follows: Is the development and introduction of the Educational Practice File related to changes among educational practitioners in terms of how they (practitioners) update their knowledge of the best educational practices available in a key competency-based educational area, namely Citizenship/Consumer Education*?

Among the various sub-questions addressed by this study are:

1. Is use and valuing of the Educational File system among educational practitioners related to such contextual variables such as teacher mode, cost per pupil, recent litigation and emphasis on competency attainment by local or state officials?
2. Is use and valuing of the Educational Practice File system related to background characteristics of educational practitioners? For example, are age, sex, formal education, mobility, position within the school, years on the job, etc. related to the use of the Educational Practice File?

*Since Citizenship/Consumer Education is an important competency-based content area of the pilot file system, it is suggested that the summative assessment focus on this aspect. The recent attention given to competency-based education (see Phi Delta Kappan, May 1978) provides ample justification for selection of this content area for testing during pilot phase.

Design(s):

The primary design used in this study will be the Time-Series Experiment. Campbell and Stanley describe this study thusly: "The essence of the time-series design is the presence of a periodic measurement process (self report questionnaire) on some group (educational practitioners) and the introduction of an experimental change (Education Practice File) into this time-series of measurements, the results of which are indicated by a discontinuity in the measurements recorded in the time series. It can be diagramed thus"[7]:

0 0 0 X 0 0 0
1 2 3 4 5 6

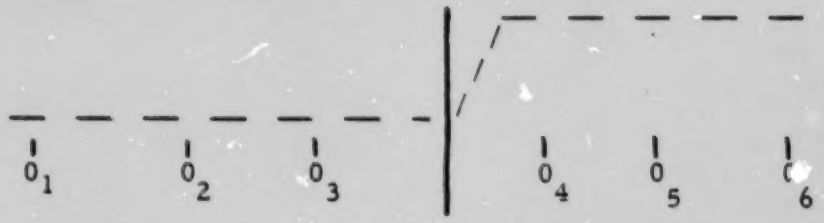
where 0_1 through 0_6 are observations and X is the treatment.

One major assumption underlying the slection of this design is that most educational practitioners already have, prior to the introduction of the treatment (the pilot Education Practice File) a variety of face to face, print related or abstract - basic ways of staying current with the best educational practice in the field of citizenship education. This design assumes that a "steady state" among these methods can be documented through a series of observations prior to the introduction of the pilot Education Practice File. This design is particularly fashioned to then pick up any changes from the pre-Education Practice File to the post-Education Practice File phase.[8]

7 Donald T. Campbell and Julian C. Stanley, "Experimental and Quasi Experimental Designs for Research on Teaching," Chapter 5 in Handbook of Research on Teaching, pp. 171-246.

8 This design may be supplemented or replaced by the Equivalent Time-Samples Design if contractor's implementation of the Educational Practice File so dictates (i.e. if continued changes in treatment are expected after pilot begins).

The developers of the Educational Practice File system wish to achieve the following change:



where 0_1, 0_2, and 0_3 are, for example, measures of the use-rate of abstract-type information prior to the implementation of X (the Education Practice File) and 0_4, 0_5, and 0_6 are the same measure after the implementation. In other words, the old steady state has been supplanted by a new steady state which has a much greater reliance on abstracted material from the Education Practice File as its basis.

The internal validity of this design is nearly complete with "history" being the only problem area. This surface shortcoming can be overcome by keeping a careful Project Log at each experimental site in order to reasonably entertain plausible rival hypothesis which may compete with the Educational Practice File for explaining change in the pattern of the educational practitioners included in the study.

Sampling Procedure

The following sampling procedure is tentatively suggested:

1. One hundred and fifty educational practitioners will be randomly drawn with replacement from the professional staffs involved in Citizenship/Consumer Education at each of three pilot sites. These sites will be specifically selected to facilitate incorporation into the research the fullest range of both contextual and practitioner-related variables, as well as the most significant variations in practice file design which are employed on a site-by-site basis.

2. After selection, each subject will receive an I.D. number. Extensive background information (sex, age, position in school, etc.) will then be recorded on a one-shot basis. These data will be recorded and transferred to an op/scan form which will also have columns reserved pilot site and other contextual variables, as well as for the six observations needed to determine the answers to the main study questions.

Instrumentation

Instrument(s) to be constructed to measure both:

1. Actual information-seeking behavior of educational practitioners.
2. Changes in relative valuing of Educational Practice File information compared to other information source. The instrument assessing value of Educational Practice File type information will utilize the 18 information sources identified in Educational Information Market Study (see Table presented earlier).

Data Analysis:

This proposal acknowledges the cautions mentioned by Campbell and Stanley relative to the tests of significance used for a time-series design. The steps to be followed in this data analysis are as follows:

First, a two-stage statistical procedure will be employed in order to determine the significance of those practitioner changes (attitudinal and behavioral) occurring throughout the time-series design. This will involve:

a.) Plotting the various line(s) from 0_1 through 0_6, depending on the sub-question variable being addressed at the time.

b.) Depending upon the intercept and slope, selecting appropriate statistical method -t-ratio on actual or extrapolated means and standard deviators, analysis of variance or correlation (trend analysis) to be used in measuring the significance of the change.[9, 10]

Second, a clear view of the association between use and valuation of the Educational Practice File, and a wide variety of both contextual and practitioner-related variables (approximately 15-25 variables) will be sought through the application of correlation analysis to the data yielded throughout the time-series experiment. All variables meeting the minimum standards of ordinal-type data, or which can be converted to ordinal data (e.g. changing "position within school system," a nominal variable, to "levels of decision-making power," an ordinal variable), will be subjected to multiple regression analysis. Where this is impossible (as in the case of nominal variables such as sex, race or ethnicity where no rank-order can be superimposed), correlation co-efficients appropriate to nominal data will be utilized (phi-co-efficient, contingency co-efficient C, and/or Cramer's V statistic all based on chi-square distributions).

Time Line:

Summative II evaluation study will be carried out between months 12 and 17 of Phase II. Emphasis or Time Series Design will necessitate ascertaining pre-pilot conditions at least once prior to implementation of pilot.

---

[9] Introduction to the Theory of Statistics, A.F. Mood, 1950

[10] "Statistical Models for the Study of Change in a Single Case" Problems of Measuring Change (Harris, editor), 1967

Since this is an extremely short period of time to gather data, consideration might be given to extending Summative II data collection into a post-Phase II period (a field test). This would result in less bias resulting from seasonal data and would allow for data collection over an entire calendar or school year.

Objective #4 Prepare a File Management Plan

The file management plan is the last formal documentation required for Phase II (Product 2.4). This plan will draw upon the experience of the simulated clearinghouse, the pilot test and the evaluation data to provide details for:

-System specifications not included in foregoing documentation

-Instructions for implementing an operational Practice File

-Outline of costs, facilities and staff required to start-up and maintain an operational Practice File.

-A funding plan for maintaining a Practice File under three different conditions:

1. Total Federal support
2. Mixed Federal/non-Federal support
3. No Federal support

The activities to accomplish this objective are inherent to the fulfillment of the foregoing objectives with the exception of the actual preparation of the document (Product 2.4) itself. To facilitate preparation of this documentation, a general two-day meeting of BRS staff and all project consultants will be held 530 days (sixteenth or seventeenth month) after the initiation of Phase II. At that meeting, all staff shall relate the experience and data collected during Phase II to the areas shown above.

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PILOT TEST

EDUCATION PRACTICE FILE DESIGN

PRODUCT 1.6

Submitted as part of NIE Contract #400-77-0095

By: Gregory Benson, Jr., Project Director

June, 1978

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PREFACE

This document represents a fuller description in an operational mode of the Education Practice File Design suggested in Product 1.4/1.5 (Preliminary Design Feature Alternatives and Discussion of Their Feasibility for a National Education Practice File). The expression of the design in operational terms does not imply that the design itself cannot be modified. Surely the pilot test of the Practice File will result in numerous design and procedural changes.

BRS has involved Richard Brickley and Carolyn Trohoski in numerous aspects of the Education Practice File Project. Their practical background in educational information services led BRS to request their assistance in "operationalizing" the tentative design for the Practice File. Their response to that request is embodied by the major portion of this document which we feel is an excellent representation of the suggested file design expressed in a manner to be most useful to those who are developing or considering the development of educational resource bases.

Though not complete in every detail nor beyond meaningful modification, this product provides the reader with a practical look at the direction the Education Practice File Design process is taking.

Gregory Benson

Project Director

INTRODUCTION

The following material is submitted to satisfy requirements for Product 1.6--the Educational Practice File Design. It has been prepared as a processing manual to guide the pilot test of the Education Practice File (EPF).

Within the manual, sections are written about the content of the file, the means for acquiring practices, and the provision for reports and forms for tracking and documenting practice entry.

Another section deals with the manner in which practices are selected. Criteria are specified as limiters to file inclusion.

The Processing Section details the handling of a practice as it makes its way through the system. Areas dealing with indexing, Cataloging, and Abstracting are spoken to here.

In the Vocabulary Development and Maintenance Section, two avenues are explored for entering new practice terms into the ERIC Thesaurus. A revised composition to the Vocabulary Review Group is also discussed.

In the User Product/Services Area, the Selected Dissemination of Information (SDI) Product is addressed. A series of tasks are outlined for producing two SDI's during the pilot phase.

The "Manual" is heavily dependent on the ERIC system logic and sections have been borrowed and revised from the ERIC Processing Manual. The document waivers between being specific to the pilot phase orientation and a much broader futures orientation.

A series of flow charts depicting the flow of tasks from several sections are attached at the back of this document. They should be reviewed as the appropriate section is read.

Richard R. Brickley

Carolyn Trohoski

SECTION A: CONTENT

The content of the EPF will be driven more by type and source of practice than by specific discipline or subject area. Practices which come from instructional activities, managerial procedures and needs assessment and testing techniques which are part of the instructional programs will be considered for inclusion. The mode of instruction may vary from individualized to group. The Practices may be found in organizational structures such as multi-age groupings, self-contained classrooms, on field based community efforts, or alternative learning environments and the teacher in-service level.

The Scope of Content for the pilot stage will be concerned with two major areas of the curriculum - Citizenship and Consumer Education. It was felt that the file had to be limited during this stage. These areas were selected because the number of practices they represent is felt to be a manageable one and yet of primary educational importance.

As a Scope of Content area, Consumer Education will need to be defined. An example of an abstract of Scope for a clearinghouse is shown below and is accompanied by a partial list of ERIC descriptors and applicable group codes. (See Figure 1).

FIGURE 1

CONSUMER EDUCATION - Abstract of Scope consumer education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and financial skill knowledge and specific homemaking and money management skills. Consumer protection including merchandise information and purchasing. Economic education, including budgeting, credit (finance), income and inflation; Consumer Education technology, including foods and clothing instruction, maintenance and repair.

Consumer Education (a partial list of ERIC descriptors in content scope)

Consumer Education
Consumer Science
Consumer Economics
Consumer Protection
Economic Education
Family Life Education
Health Education
Home Economics
Home Economics Education
Homemaking Education
Money Management
Purchasing
Vocational Education
Merchandise Information
Consumer Education Technology
Clothing Instruction
Foods Instruction
Maintenance Repair
Money Management
Budgeting
Credit (Finance)
Income
Inflation (Economics)

Applicable ERIC Group Codes

110 Curriculum
140 Education
220 Finance

The resources for the Consumer Education and Citizenship in pilot stage will come from three major sources - the exemplary programs which have been validated by the Joint Dissemination Review Panel (JDRP), the consumer and citizenship practices from the SEA validated pool and non-validated practices which are appropriate to the content area.

To date, there are approximately 200 programs that have been validated by the JDRP. These programs cover all educational levels from early childhood to adulthood and wide variety of curriculum and organizational areas. Most JDRP programs have a technical assistance component consisting of the capability for training and follow-up. The programs carry evidence of effectiveness in student growth or other impact on significance others such as teachers, community, etc. The proper practices in the JDRP file go beyond the print (document) stage as most of the projects provide a training capacity, consultant services, and visitation and demonstration sites. The EP file will serve as an access to the abstracts found in the JDRP catalog. The abstracts will "refer" the user to a contact person or an intermediary such as a State Facilitator.

A catalog of all the JDRP program descriptions has been compiled by and is available through Far West Research and Development Laboratory in San Francisco. The actual abstracts are prepared by the developers of the programs. It has been determined that all JDRP practices will be placed in the pilot, even though most of the practices do not deal with Citizenship or Consumer Education. The rationale behind this decision is that the number of JDRP programs is small and that beyond the pilot stages all the programs would have been entered eventually.

The second source for the content area are practices residing in the State Validated Pool. Several states have identified practices which passed a specific set of criteria and have been judged exemplary. Files of these

practices exist in manual and computerized retrieval forms in State Departments of Education or their designated Information Centers.

Although each state has developed its file independently, many common elements exist throughout validated files. Most practices in the State Validated pool have an abstract and a file of surrogate materials in either a print or non-print (microfiche) format. Several states include the proposal on each project.

In the pilot phase only those practices dealing with Citizenship and/or Consumer Education will be extracted from individual State Validated files for the EP file.

Non-validated practices may come from many educational sources. Federal funding for the Elementary and Secondary Education Act has aided districts in the development of several programs in the general areas of basic skills competencies, special education, gifted, libraries, conseling education, nutrition, delinquency, drop-out prevention, fine arts, women education, educational equity, compensatory education, etc. These practices may be most in need of formating and structuring for input into the practice file data base although program offices in departments often compile catalogs of such programs. In the pilot phase, only those practices dealing with Citizenship and/or Consumer Education will be utilized from the non-validated practices source.

The materials in these resources represent a variety of formats and media. Practices will be presented in wide range of audio-visual aids such as filmstrips, video-tapes, movies, audio-tapes, slides and games. They will be found on microfiche and in the traditional printed form of documents and textbooks. As such, the varied media will present the EPF/CH with decisions on which items to acquire, replicate or simply refer the user to the contact person.

SECTION B: ACQUISITIONS

'NTRODUCTION:

Acquisitions is the procedure used to collect the raw materials for all functions that follow: selection, processing announcement, retrieval, and dissemination. It is the critical first step in building the Educational Practice File (EPF) data base.

Among the various technical processing tasks involved in building a data base, acquisitions is unusually dependent for its success on resourcefulness, inventiveness, and industry, and less dependent on the exact following of written policies and procedural rules (such as presented here). This is because there is no single one best way to bring Practices in; the opportunities present themselves in a multitude of guises. They must be seized rapidly and with whatever accommodations and adjustments the situation calls for. The acquisitions librarian or specialist msut be stubborn, problem-solving, farsighted, creative, and whatever else is necessary, to ensure a steady inflow of potentially valuable Practice Documentation.

The acquisitions process always contains an element of selection in that not everything can be obtained, priorities must be set, decisions must be made even as to what to go after. Nevertheless, a cardinal rule of the acquisitions process is "When in doubt, get it!" Once obtained, a Practice may be selected or rejected, but if it is never obtained in the first place, Educational Practice File personnel never get a chance to exercise any selective or critical judgement with respect to it.

Because the EPF will provide access to Practices, which (unlike ERIC), frequently are not reducible to a single or series of documents, the acquisitions procedures may be more complex. However, much of the standard ERIC Acquisitions rocess* is applicable to the EPF acquisition effort.

*EM Section 2
*Asterisk serves as footnote citation to the ERIC Processing Manual. Throughout this paper, it will be coded "EM". It will be followed by a Section number, Figure or Table number, or page number.

ACQUISITIONS

Summary of Significant Rules

1. ERIC Clearinghouses have basic responsibility for acquiring those Practices that deal with their subject areas. Clearinghouse efforts are supplemented by those of Central ERIC (NIE and OE Practices = not JDRP) and the EPF Clearinghouse (JDRP, State Validated, Commercial, etc.).
2. When in doubt, acquire. An acquired Practice may be selected or rejected, but an unacquired Practice never receives the benefit of an informed evaluation.
3. Arrangements that cause Practices to be received automatically, whenever they first become available, are generally more productive and more economical than on-demand after-the-fact efforts; in addition, they result in more timely receipt of Practices.
4. Exchange arrangements must be monitored to ensure their effectiveness (are the Practices bargained for being received?) and their fairness.
5. Each Clearinghouse is responsible for establishing basic control over the Practices that it has on-order.

TYPES OF ARRANGEMENTS:

The acquisitions tactics utilized by the EPF may include, but not be limited, to:

A. Tactics to Identify, Inventory and Acquire Existing Practice Resources: (See Flow Chart: "START-UP ACQUISITIONS")

1. ERIC: Extensive searching of the current ERIC data base for relevant Practices is a necessary and logical first step. The EPF will establish arrangements to computer search the existing file; it will also establish direct contacts with the ERIC system to establish a liaison with EPF. That liaison's first task will be to critique the "hit list" of practices determined by the EPF and also to review non/ERIC holdings of the ERIC Clearinghouse for relevant Practices.

2. Joint Dissemination Review Panel (JDRP): Because the current Education Division's (USOE/NIE) Joint Dissemination Review Panel serves as the exclusive screening mechanism for the dissemination of federally-supported/developed practices, its 200* practices will be acquired by EPF. This will be accomplished by utilizing the Materials Contractor of the NDN, who produces and maintains the catalog (Educational Programs That Work) of JDRP approved Practices and their related documentation.

3. State Validated Programs: As an adjunct to the national validation program (JDRP) some states have established in-state validation processes. Practices so identified to date will be acquired by EPF through a formal request

* As of May, 1978

through NIE's National Dissemination Leadership Project representatives.

4. Non-Validated Practices:[+] Practice related information file development activities of professional organizations and other national and state dissemintion efforts will be acquired. These included, but may not be limited, to:

   - Professional Organizations
     - . NASSP "exemplary gratia"
     - .
     - . Etc.
   - National and State
     - . State Capacity Building Projects File Development (Cf. Benson's Survey)
     - . R&D Utilization Project (Knowledge, Consolidated Components
     - . Regional Exchanges and Central Contractors of the RDX System

PILOT PHASE ACQUISITIONS OF EXISTING PRACTICES

See Flow Chart ("Start-up Acquisitions")

1. ERIC: This source will be tapped by the BRS System search and by relationships with key ERIC Clearinghouse staff. Acquisitions during pilot phase will be limited to the Citizenship/Consumer Education Scope of Interest (Cf. Content).
2. JDRP: Because all JDRP approved practices will be included in the pilot phase, the Far West Regional Educational Laboratory, (Fred Rosenau) the current Materials Contractor for the USOE/NDN will be the central source for existing and (on-going) JDRP Practices information. In addition to the Educational Programs That Work

+ Human Resources, Commercial Practices will be addressed later in Phase II - at that time appropriate additions can be made to this document.

catalog (descriptive abstracts); other NDN products such as the Materials Inventory and other documentation will be acquired (microfiche of these materials is available from the Connecticut State Facilitator (ACES/Osgood). It would also be useful to acquire the JDRP briefs for all programs (from the JDRP exectuive office - Sy Rubak/USOE) as Practices documentation.

3. State Validated Programs: Determine which states presently validate their own programming; also, document procedures, criteria, benefits/expectation of approval; acquire lists of Practices to determine relevance to pilot phase scope of interest.
4. Non-Validated Practices: Determine which organizations, national and state programs have (or will have) Practice information related to scope of interest in pilot phase. Concentrate acquisitions on these units only. One tool to identify those that have files (other than survey) is to review their house organ (newsletter or journal).

B. (Future) On-going Tactics:

1. Unsolicited Receipts: As awareness of the EPF effort is spread, a concommitant message of EPF's interest in receiving unsolicited contributions of Practices will accompany the "How to use EPF" message. Brochures, slide tapes, and other awareness instruments will always include this message; so should all specific product outputs (i.e. responses to clients). Follow-ups with contributions of this type can sometimes result in continuing arrangements. (See also Section I: USER SERVICES/PRODUCTS).

2. Automatic Distribution

Distribution Lists: The most productive kind of acquisitions arrangement is one where the requesting organization is on a potential Practice Developer organization's mailing list (formal or informal) and thereby gets information on all of their activities "automatically" as issued. A successful request for a specific Practice nets one practice; a successful request to be put on a distribution list may net 100 practices over time.

At the time arrangements are consummated, they should always be documented for local records* and reinforced by a letter of understanding sent to the contributor.* As personnel change, it is often useful to staff on both sides of such an arrangement to have documentation supporting an agreement. A number of such arrangements, operating successfully, will form a solid foundation for any active acquisitions program. Once established, such arrangements may continue for years with little or nothing required to maintain them. It is good practice, however, to periodically check acquisitions records to make certain each contributor is continuing to send reports. Follow-ups should be made in cases where receipts have either stopped or seriously diminished. If any specific titles are known which have not been received, they can be requested during the follow-up.

3. General Solicitation (e.g., Conferences):

There are many opportunities during the year to direct general solicitations to specific organizations and activities.

*EM Fig. 2.1
*EM Fig. 2.2

In such situations, the solicitation is not typically for specific practices, but rather for all practices that the activity produces; the purpose is not to try to set up a permanent distribution list arrangement, but rather to try to take advantage of a temporary and often transient opportunity.

Professional meetings, conferences, symposia, seminars, workshops, colloquiums, etc., are good examples of such opportunities. EPF acquisitions staff who learn of relevant activities of this type may participate at various levels, e.g., (1) write for proceedings and papers; (2) attend the activity; (3) participate in the program, (4) establish a booth; etc. Whatever level of participation is chosen, the acquisitions person involved should take every opportunity to publicize EPF and make its practice needs known, e.g., distribute business cards, hand out brochures and materials describing the EPF system and the need for contributor input, request preprints from chairmen or copies of papers from individual speakers, etc.

4. Requests for Specific Titles:

The acquisition of specific practices usually involves an individual written request directed at the developing sponsor, publisher, or other source. The External Form (DAF) should be used for this purpose. Sometimes a request for a single practice will lead to an offer of other related practices or an offer to send future practices as developed. For the most part, however, requests for

specific titles are a one-for-one proposition, i.e., one successful request nets one practice.

Records should be kept of each practice so requested, in order to avoid duplicate requests (irritating to the source and wasteful of effort), and in order to be able to respond knowledgeably to all practice requests received. As practices are received and included in the system, this outstanding request or on-order file must gradually be purged to keep its size manageable.

Form Letters:

Because of the large number of contacts required by the acquisitions process, it is often advantageous to rely on form letters, or at least standard language which has been developed to make an optimum presentation of the requester's position, the advantages of submitting a practice to the EPF, etc. With good printing and a personalized inside address and salutation, a form letter can appear quite "customized" and can achieve the desired result. There will, of course, always be instances in which original letters must be written. Nevertheless, form letters definitely have a time-saving role to play in acquisitions work, particularly in the initial contact phase.

Acquisitions Tools:

A wide variety of reference tools are useful in acquisitions work. Most prominent and numerous are the tools to be scanned in order to learn of promising new practices, e.g., newsletters of professional associations, professional

journals, catalogs and flyers of publishers, other abstract journals, federal program catalogs, etc. Also of use, however, are tools that inform of upcoming conferences and meetings, directories that list likely source organizations, research-in-progress compilations that pinpoint future practice producers, etc. An active acquisitions organization typically builds up an extensive reference collection and also ensures the continued regular receipt of numerous serial publications that are regularly scanned.

PILOT PHASE: ON-GOING ACQUISITIONS

See Flow Chart marked " On-going Acquisitions

A. UNSOLICITED RECEIPTS:

BRS/EPF simulated clearinghouse (EPF/Ch) will be identified as receipt point for unsolicited Practices. EPF/CH will ensure that a clear message of "Practice seeking" is disseminated, especially to scope of interest communities, i.e.

- Consumer Education related associations
- Citizens Education related associations
- All JDRP approved programs and other NDN staff (e.g., they are likely to be knowledgeable of non-validated programs in the scope of interest).

B. AUTOMATIC DISTRIBUTION:

The EPF Clearinghouse staff identify potential continuing developers/producers of practices in the scope of interest. They will request placement on their mailing list/standing order list to receive automatic distribution of new Practice information. Each arrangement will be documented in the EPF files and a letter of understanding will be

sent to the source. Receipts from these automatic distribution sources will be monitored and prodded when necessary.

C. GENERAL SOLICITATION:

By analysis of standard conference schedules, etc., the EPF will identify appropriate content specific to Conferences/Conventions in Scope of Interest (e.g., ASCD) at which Practices may be demonstrated, reported, etc. Through correspondence with conference planners and/or actual attendance, the EPF staff will arrange for submission of all relevant Practices; attending staff may actually return the practices (DAF) to the EPF/CH.

D. REQUEST FOR SPECIFIC TITLE:

Specific practices (by title) may be nominated to the EPF staff for inclusion. After preliminary determination that practice is in scope of interest for pilot phase, an External Form (DAF) is sent to the developer.

EPF CLEARINGHOUSE ACQUISITIONS EFFORT:

General Mandate: The primary responsibility for the acqusitions and the bringing in of practices to the system will be with the EPF Clearinghouse assisted by the ERIC Clearinghouse. Each Clearinghouse is responsible for ensuring the flow of practices it acquires in its special area of education to the EPF.

In order to qualify for EPF, practices must: (1) Fall within the field of education, broadly defined; (2) Meet the physical (i.e., size and legibility of documents), content, and quality criteria set forth in Section 3: Selection. Practices which fail to satisfy the basic requirements are not to be input to PF. If a practice falls outside the scope of interest of the Clearinghouse

considering it, it should be routed to the appropriate Clearinghouse or to EPF/CH for evaluation rather than discarded.

Sources of Practices: The EPF Clearinghouse and the ERIC Clearinghouse are responsible for acquiring practices issued by all organizations except those reserved as determined by NIE policy (i.e., NIE R&D catalog products).

For most acquisitions, both the EPF and the ERIC Clearinghouses must rely on contacts with appropriate professional societies, academic institutions, people known to be working in the field, specific state or local officials responsible for programs relevant to the Clearinghouse scope area, foundations sponsoring education projects, publishers, institutes, speech-givers, information centers, etc. Conferences can be a lucrative source of practices, and Clearinghouses should be alert to all conferences in their subject area. In addition, Clearinghouses may coordinate with other elements of the network in covering all papers and products of a large or general conference in their geographic area, later forwarding those outside their own particular subject scope to the EPF for processing.

Acquisition Tools: The Clearinghouses must utilize a number of reference tools to identify specific practices and potential sources of practices: journals, newsletters, advertisements, book reviews, and news items should be scanned regularly. Catalogs or lists from charitable and social service agencies often produce good practices for acquisitions. Acquisition lists from information centers and special libraries are excellent sources of new practices, and sometimes provide full information for ordering either from the center or the publisher. Staff and client recommendations, as well as references contained in ERIC Clearinghouse information analysis products, can furnish valuable leads to new practices. This third party recommendation procedure is especially useful in regard to non-validated practices. The

nomination of a practice by a user/adopter/adapter is significantly more credibility producing than self-nomination.

EPF Clearinghouse Operations (Typical): Actual EPF Clearinghouse acquisitions operations may differ from those suggested here in procedural detail, forms and files used, recordkeeping, and in other respects. No matter how they are implemented, however, the acquisition operation is expected to observe the basic functional steps described below.

1. Identify specific practices which appear to be desirable acquisitions.
2. Check local "on-order" files and standard EPF duplicate checking tools (such as the Title Index and Acquisitions Data Report) to determine if the identified items have already been ordered, received, or processed.
3. If the item is not found in step #2, prepare and mail an External Form (DAF) for transmittal to the practice source.* Also prepare an "on-order" record.* In both cases, it is advisable to provide as much identification data as is available. As a minimum, however, provide the title, developer, number of copies wanted, price (if appropriate), and date ordered.
4. As practices are received, check them against the "on-order" record and either purge the file, or indicate on the record that the item has been received. The EPF Clearinghouse will acknowledge receipt of practices (and engender additional contributions) by means of "Thank You" notes or letters directed at the developer or source.* Copies of the EPF announcements or the abstract forms for the practices in question may be sent with these notes.

*EM Fig. 2.6, 2.7
*EM Fig. 2.8
*EM Fig. 2-9A, B

5. Evaluate received material against the official physical content and quality selection criteria and against the EPF Scope of Interest statement. Practices in appropriate for the system may be discarded. Practice documents falling within the scope of other ERIC Clearinghouses should be transferred to them.

6. Prepare an entry for the Acquisitions Data Report (a composite report prepared monthly by the EPF reflecting the acquisitions during the previous month period). This step requires the EPF Clearinghouse to formally log the document and assign to it a temporary Acquisitions Number.

7. Resolve any copyright or reproduction release questions.*

Copyright and Reproduction Releases - All copyrighted practice documents, those bearing reproduction restrictions, or those being sold by the source, require special attention. A decision must be reached as to whether it is necessary to seek a reproduction release from the source. Normally a release should be requested when: (1) the publisher is obscure or transient and the item would not be readily available in the future; (2) a limited quantity has been produced, also indicating future availability problems; (3) only a portion of the document is copyrighted; (4) the source is highly interested in achieving wide dissemination and EPF can help achieve this; (5) the source is non-commercial in nature; (6) there are any other indication that the practice document is likely to go out-of-print rapidly and that an EPF microfiche would perpetuate the availability of the practice information for future users.

The Clearinghouse should obtain written permission to reproduce from the copyright or seller.* The responsibility for

*EM Fig. 2-10
*EM Fig. 2-11

maintaining a file or Reproduction Releases and for ensuring the accuracy of copyright information on the EPF form rests with the Clearinghouse.

After all the above steps are completed and the practice is determined to be suitable for EPF, i.e., legible, not a duplicate, cleared by the Government (where appropriate), and without any unresolved reproduction problems, acquisitions formally comes to an end and the practice is ready for final selection for the cataloging/indexing/abstracting process. Because of the expense of the various intellectual practice analysis functions, the acquisitions function must make every effort to eliminate duplicates before that stage of processing is reached.

SECTION C: SELECTION

INTRODUCTION:

Practices acquired as candidates for possible inclusion in EPF must be subjected to a set of rigorous selection criteria to determine their proper disposition. Although in many cases the practices were originally acquired selectively, the decisions made by acquisitions staff are usually in the absence of the actual practice (External Form - DAF) and thus are necessarily preliminary to the final selection process. It is the objective of this section to establish standards for judging a practice in hand as to the following factors:

- appropriateness of content (to the field of education/scope of EPF Clearinghouse)
- suitability of presentation, format, medium, documentation
- quality of content
- legibility and reproducibility (physical characteristics) of practice documentation*
- availability (transportability - "autonomy of resource")

A practice defined by its External Form (DAF) meeting the criteria in each of these five areas would be selected for processing. A practice not meeting one or more of these criteria would be discarded.

Failure to satisfy criteria in any one of the areas may be grounds for rejection. Nevertheless, so important to EPF is the quality of the data base formed from these practices that "Quality of Content" and transportability considerations should be regarded as the most important area.

Practices from from this point forward in the EPF cycle are specifically the entity described in the External Form (DAF). Materials (back-up, supplementary, etc.) which relate to a given practice will be selected in the same manner as ERIC documents; i.e., with quality, legibility/reproducibility, and availability considerations. See ERIC Manual, Section 3, Selection.

*EM Section 3.5

SELECTION

Summary of Significant Rules

1. All practices selected for announcement by EPF and inclusion in the EPF data base must have a demonstrable connection with and relevance to the field of education.
2. Practices acquired anywhere in the system are transmitted on the basis of subject matter from the appropriate ERIC Clearinghouse to EPF/CH for processing. Topics not previously included in Clearinghouse scope of interest statement must be allocated as they arise. Scope of interest statements must be constantly revised in order to include any new topics assigned to Clearinghouses.
3. At least one practice generalist (and preferably more) should be involved in the selection process at each Clearinghouse.
4. Quality and transportability are the most important selection criteria. Quality is a composite factor made up of several more specific characteristics, e.g., contribution to knowledge, significance, relevance, newness/innovativeness, effectiveness and thoroughness of presentation, clarity of objectives (outcomes), relation to current priorities, timeliness, size of potential audience.* Transportability is a composite factor made up of complexity, divisibility, adaptability, implementation support capacity (i.e., training), accessibility to essential operational material and start-up and maintenance costs.
5. To be selected for EPF, practices must have been operated for at least one year, be presently operating somewhere in a local school setting, and be implementable through available documentation (e.g., operations manual) and/or training provided by the developer or a turn-key trainer. Furthermore, the practices must contain assurance of equity and harmlessness to participants. Related Practice Documents must be legible and reproducible.

*EM Section 3.4

If a document has defective pages, they must either be corrected, or judged not to seriously affect the contet of the document, before that practice can be selected.

6. Practice documentation (materials) that is selected for EPF even though it contains physically illegible or non-reproducible pages (or parts of pages) must bear the legend "BEST COPY AVAILABLE".
7. All practices selected for EPF must be available either from EPF or from an outside source whose name and address can be cited. Practices that cannot be made available to users should not be selected and announced in EPF.

The selection process shall be performed by ERIC Clearinghouse staff, EPF Clearinghouse staff, Clearinghouse Advisory Board members, or generalists engaged from the field to make evaluations and decisions. A multi-person screening committee may be used and is highly recommended. In any case, at least one of the screeners employed should be a subject-matter specialist. Useful recommendations may also be found in reviews and commentary in published sources or other documents.

Written guidelines* and an evaluation form* on which to record recommendations should be provided all selection personnel. Selectors should also be made thoroughly familiar with the ERIC/EPF data base, the ERIC/EPF indexing vocabulary, and the mandated scope of interest of the Practice Clearinghouse. All selectors should, of course, maintain an on-going awareness of important developments in the Practices sector of all fields of education covered by the EPF or their respective Clearinghouse.

SCOPE OF INTEREST (SUBJECT MATTER)

Documents must pertain in some way to the field of education (and in particular to the areas covered by the ERIC Clearinghouses) in order to be considered for selection. In the ERIC system, education is subdivided into

*EM Fig. 3-1, 3-2

major areas and an ERIC Clearinghouse is put in charge of each. The scope of each Clearinghouse is separately defined - the best definition available of the overall field of education is, therefore, the combination of the Clearinghouse scope of interest statements.

Most practices that are education-related fall primarily within the scope of single ERIC Clearinghouses. When an ERIC Clearinghouse finds itself in possession of a practice which falls within the EPF scope, the practice should be transferred promptly and directly to the EPF Clearinghouse. The intent is for the network of ERIC Clearinghouses to provide an "umbrella" encompassing the entire field of education, including new emphases, directions, and innovations. As they acquire practice information, they forward it to the Practice Clearinghouse for input to EPF.

TYPES OF PRACTICES

The Educational Practice File will include:

Curriculum materials (anything of a written or audio-visual nature developed to meet the objectives of an educational program). Examples: textbooks, films, other visual aids, records, games and simulations, teacher manuals (including goals and objectives, learning experiences, activities, and instructional aids). Scope includes managerial practices (related directly to instructional problems), testing instruments for classroom settings and supporting documentation, needs assessment techniques related to instruction, and community involvement programs, in-service education programs, individualized education programs and alternative education programs. Validated and non-validated practices will be eligible for inclusion.

QUALITY OF CONTENT

Practices selected for EPF should be of high quality, transportability, substance, and significance. The following characteristics all contribute to that elusive and subjective, but most important factor, "quality". While

every practice should be examined for these desirable characteristics, not every practice can be expected to manifest all features.

A. Contribution to Practice Knowledge; Significance

B. Relevance

C. Innovativeness (Relative; Absolute)

D. Thoroughness of Practice Documentation (Transportability of awareness)

E. Relation to Current National, State, Regional or Local Professional Priorities

F. Timeliness

G. Prior Credibility of Source regarding Practice Development

H. Utility (Audience Comprehensiveness)

I. Feasibility

J. Cost

K. Autonomy of Resources

EVIDENCE OF EFFECTIVENESS (EVALUATION)

Ideally the EPF will provide access to practices whose claims of effectiveness are verified by appropriate evaluation methodology and results. In some cases, this validation may be verified by approval of a third party review process, such as the JDRP or state validation efforts. But the lack of such prior validation will not automatically exclude the practice from inclusion in EPF.

As detailed in the Processing Section of this manual, evaluation status will be a searchable field for all practices. Its content may include a number of dimensions, beginning with "No Evaluation (Evidence of Effectiveness) Information Available". Other possibilities include:

Type of Evaluation: case study, pre-post test, peer review, etc.

Type of Objective/Outcomes Specification: actual learning outcomes, (e.g., behavioral terms) and their classification regarding

Bloom, et. al.

Learner Verification Data: may be included if available.

Validation Status: approval by Joint Dissemination Review Panel (JDRP), Identification Validation Dissemination Process (IVD), various state validation efforts (e.g., Pennsylvania Diffusion Panel - PDP); date of approval needed.

These and other evaluation efforts could serve as tags. A reference record on each evaluation dimension would be maintained by EPF (i.e., a "look-up table", possibly on-line) which would summarize the nature of each evaluation dimension. For example, if a given Practice listed "PDP/1978" in this field, a review of the reference record would describe under PDP/1978 the process and criteria required for approval by the Pennsylvania Diffusion Plan in 1978. Likewise, if the same Practice listed JDRP/1976 in this field, a review of the reference record on "JDRP/1976" would cite the Joint Dissemination Review Panel's criteria and procedures, with special attention to those elements unique to 1976.

The importance of this strategy to SELECTION is that while no Practice would be rejected for absence of this information, Practices with information available on one or more of these dimensions would be "Most Suitable" for inclusion in EPF.

OTHER SELECTION CRITERIA

Additional criteria for selection of Practices for inclusion in the EPF include:

1. Existance of and reasonable access to a CONTACT PERSON who participated in the development of or the subsequent demonstration/adoption of the practice.
2. The Practice must have operated for at least one school year (or appropriate subset thereof, e.g., mini-course of

six weeks, etc.).

3. A current demonstration site or adopter site exists, where the practice is in use.
4. Primary materials essential to the conduct of the Practice are available for the original developer or some other source. This includes non-print materials especially.

PILOT PHASE: SELECTION

(See Flow Chart "Selection")

Note: This Selection description refers exclusively to SELECTION OF PRACTICES for inclusion in the automated EP file. Selection related to Practice Documents (back-up materials) is not dealt with. The rationale for this exclusion is that:

(1) During the pilot phase, and probably for the new terms, the EPF will not provide source availability to anything except Print Materials as back-up, and then only sparingly.

(2) For that Print-only materials file, current ERIC Procedures as outlined in the ERIC Manual (Selection, Processing, etc.), are sufficient to handle those aspects of the back-up file. These include the necessary physical characteristics of documents (type size, page size, etc.) which would also apply to EPF documents, especially if ultimate output format is to be M.F.

PRACTICE SELECTION

Review TYPE:

Upon receipt of an External Form (DAF) screened for fit with content area(s), (Consumer/Citizenship Education), the Practice is reviewed for acceptance in terms of Type of practice. The TYPE criteria are listed

under TYPES OF PRACTICES above and on the flow chart.

Review QUALITY:

While the pilot phase is to include all practices within scope, a quality control review should be simulated to determine its operational feasibility and utility. Borrowing from the ERIC approach, and preview EFP design efforts, the QUALITY criteria are listed above and on the flow chart.

Review OTHER CRITERIA:

These other criteria include factors critical to implementation and are necessary for pilot phase to trace full cycle of practice dissemination. These criteria are further explained as follows:

CONTACT PERSON: Existance of and reasonable access to a CONTACT PERSON who participated in the development of or the subsequent demonstration/ adoption of the practice.

STABILITY: The Practice must have operated for at least one school year (or appropriate subset thereof, e.g., mini-course of six weeks, etc.). A current demonstration site or adopter site exists, where the practice is in use.

CORE MATERIALS AVAILABILITY: Primary materials essential to the conduct of the Practice are available for the original developer or some other source. This includes non-print materials especially.

SECTION D: SOURCE AVAILABILITY

Practices announced through EPF must be available either through EFP or through an outside source whose name and address can be cited in the Availability Field. EPF does not wish to announce practices that the users cannot obtain in some way. Therefore, if a source of availability cannot be found, it should not be selected for EPF.

In contrast to ERIC, the EPF as a bibliographic reference file will provide access to descriptions of Practices (resumés) in a uniform format (but in varying degrees of completeness, i.e., some data fields may be empty). Whereas an ERIC resumé is a surrogate for a single document, the EPF resumé is a surrogate for a Practice, which may include one or more non-print elements or non-print documents (i.e., training, manuals, evaluation efforts, etc.). Source availability thus has two distinct aspects in regard to the EPF:

SOURCE AVAILABILITY

Source Type	Provider of Source	Client Receives: Format
1. Practice Resumé	EPF	Hardcopy
2. Practice Documentation:		
A. Print Examples: 1. Teacher Manual 2. Tests 3. Student Workbooks 4. Plan for Building Manipulatives	EPF, Contact Person, or Both, and/or Other (e.g., State Facilitator in NDN)	Microfilm and/or Hardcopy
B. Non-Print Examples: 1. Films 2. Games 3. Manipulatives 4. Training Sessions	Not EPF; through developer or third party (i.e., commercial publisher)	Duplicate, probably at cost; loan possible

Note that the delivery of Practice Documentation (Materials) is a second

process apart from the announcement of the practice itself. The EPF will limit its acquisition of Practice Documentation to print materials, using criteria of selection similar to those cited above. Of particular concern for the Print only Practice Documentation are the necessary legibility requirements to assure reproducibility in hardcopy and/or microfiche. These are the same as the ERIC Manual and include such elements as type size, colored paper or ink, photographs, size of paper, etc. For a detailed description of these criteria see the ERIC Processing Manual (Section 3.5).

For non-print materials, or those print materials not included in the EPF file itself, alternate access information will be provided. This may include references to ERIC, CITE, or referrals to AV Depository, commercial publisher, or other sources.

SECTION E: PROCESSING

This Section describes the procedures for processing practices intended for the EP file. After practices have been acquired, certain operations are necessary in order to make them ready for cataloging, abstracting and indexing. When the procedures mentioned above are completed, the practice is considered to be processed.

The flow chart in Figure 5 illustrates the steps involved in processing. An explanation of each step follows.

Check of On-Order File

All practices received are first checked against the "On-Order File" to see if they have previously been the subject of a specific request. (Practices). The on-order file is purged as orders are fulfilled; the file at any one time, therefore, represents specific practices requests outstanding.

Check for duplication

All practices should be checked against the master title listing on line to ensure that the same practice is not listed twice. Groups of titles of practices may be checked at the same time.

Accessioning

Each practice is assigned a unique accession (identification) number. The accession number is a six-digit number preceeded by EP. The practice is then registered in a log. Numbers are recorded in ascending order and are accompanied by biographic data for each practice. A regulation library register could be used. (See Figure 7). Practices consisting of several separate parts or volumes should ideally be assigned consecutive numbers in order to keep them together throughout processing and announcement.

External Form Completeness

A check should be made to see if the external form has all data cells filled. If the information appears to be incomplete, the Developer should be contacted to verify existing information and to furnish that which is lacking. Some cells may remain unfilled since not every practice has information for all the data elements.

Internal Data Provision

When the internal form is properly complete, the person processing the document must use several inhouse tools to provide data which the Developer has not furnished. The ERIC Processing Manual, Chapters on Cataloging, Indexing and Abstracting, the ERIC Thesaurus (or an on-line system thesaural or rotated descriptor display) and an ERIC Source Code Directory are needed to provide additional data elements.

The Source Directory provides alpha numeric designators for institutions and agencies. Local school districts may not have such a code unless they have many documents in the ERIC system.

Figure 7 Practice Accession Number Log

Number	Author(s)	Title
EP 000 001	Council for Family Financial Education	Teaching consumer education and financial planning: A manual for school and classroom use
EP 000 002	ASTRID ALEXANDER	MARS IN CONSUMERLAND

Publisher	Source	Remarks
Council for Family Financial Education	Council Twin Towers Silver Springs Maryland	Abstract only in ERIC
MARS Area School District	R.I.S.E.	Narrative and IV-B Proposal available

The ERIC Processing Manual should be consulted for the rules on indexing to determine the number and type of descriptors to be used. A summary of significant index rules from the Manual are as follows:

1. Descriptors used in the indexing process must either be in the Thesaurus of ERIC Descriptors, or have been proposed for inclusion in it.

2. The Identifier Field should be used to index specific entities, such as geographic locations, project names, etc. Identifiers must be structured in conformance with the rules contained in Section 8.4.

3. The "major" subject matters of the practice, whether expressed as Descriptors or Identifiers, must be asterisked (*) in order to distinguish them from the less substantial or "minor" topics. The following kinds of terms should be avoided as major, where possible:

   (a) Excessively broad terms, which lack discrimination (e.g., DEVELOPMENT), and which might otherwise collect large numbers of postings in a single journal issue;

   (b) Excessively narrow or specialized terms (e.g., HETEROGENEOUS GROUPINGS) which are not likely to occur to the users of manual indexes.

4. At least one(1) major Descriptor must be assigned to a practice not more than five (5) major Descriptors are permitted for each practice. There is, however, no upper limit on the total number of Descriptors that can be used to index a given practice.

5. There is no minimum requirement for Identifiers; no more than one (1) Identifier should be designated as major.

6. Index to the specific level of subject matter covered by the practice. Do not automatically index "up" to higher generic levels than the practice actually deals with. Do not automatically index "down" to all the sub-elements of the level dealt with.

7. Index in depth, or exhaustively, all significant concepts covered in the practice.

8. Index the practice and exposition in hand; avoid indexing implications, possible uses, and other aspects referred to, but not actually dealt with.

9. Index on the basis of the entire practice, not just a part such as the Introduction or Conclusions.

10. Every effort should be made by the indexer to index by the grade/academic level and other population concepts, with which the practice is concerned.

11. Insofar as possible, index terms used should appear (in recognizable form) in the abstract (or title) of the practice. This provides the user with a reassuring justification for the use of the index term for that particular item.

Abstract of Practice

An abstract is written (or extracted) for all practices announced in the EP file. The abstracts should be of the descriptive type containing data not found in other fields. The abstract indicates the subject, format, scope and intended audience of the document. The present tense, passive voice is usually used in writing the descriptive abstract, e.g., "are discussed", "is presented." Abstracts should be restricted in length to approximately 200 words.

The conventional and accepted rules for good writing and good abstracting practice and style should be as follows: e.g., (a)Brevity and clarity are essential; (b)Abstracts should have the same relative emphases as the practice; (c)Avoid abbreviations; (d)Do not repeat the title; (e)Remain objective and avoid introducing personal prejudices; (f)Evaluative language, comparisons of companies or commercial products, and derogatory comments concerning any person or organization, should not be included.

The abstract should usually be one coherent paragraph and consist of complete sentences. Unnecessary articles may be omitted as in writing messages. The first sentence should be in topic sentence, conveying the main purpose of the program.

Reply Cards Acknowledging Contributors

The Clearinghouses may originate such cards if they wish, or they may choose to notify their own contributors by form letter or other means. Clearinghouse systems for thanking or otherwise notifying document contributors are entirely optional.

PRACTICE TITLE: _____

_____

DISPOSITION OF PRACTICE

☐ Selected for the _____ issue of EP and is assigned practice no. _____

☐ Not selected for EP

REASON FOR NON-SELECTION: _____

_____

CH _____

DATE: _____

SECTION F

FILE MAINTNEANCE

BRS, Inc., has developed a Private Database System (PDS/1) that shall be utilized as the input, editing, loading, updating, and purging vehicle. This system shall be an integral part of the simulated EPF Clearinghouse and shall afford the opportunity for testing the remote capabilities in close proximity to the actual main computer. This test has significant implications for the future of the EPF and ERIC, and at the same time reduces cost of the Pilot Test Phase. A description of the PDS/1 follows:

PDS/1 SYSTEM

Introduction

The PDS/1 System is an independent micro computer system with specialized software, developed by BRS, for the creation and maintenance of private databases. It is designed for BRS users with private files on the BRS system who have a requirement for a local data collection and test processing capability. The PDS/1 System has the following features:

Software

- Online entry of bibliographic data
- Online text processing
- Dial up interface with the BRS system for transmission of data and online searching
- Local online data entry simultaneous with online searching of BRS databases
- Comprehensive disk operating system
  - Multi-programming
  - Multi-tasking
  - Disk management
  - Device independence
  - Full set of utilities

Hardware

- Sixteen bit micro processor
- 48k of high speed memory expandable to 256k
- 600,000 characters of online disk storage expandable to 1,200,000,000 characters

- Diablo model 1630 printer capable of producing camera ready copy
- Two visual display terminals expandable to six terminals

Maintenance

- Nationwide maintenance provided in 80 cities by Sorbus, Inc.

Cost

- Purchase of basic system, including software, for $16,000
- Three year rental and lease purchase plans available

DETAILED DESCRIPTION OF PDS/1 SOFTWARE AND HARDWARE

SOFTWARE:

The software available for the PDS/1 includes the standard programs available on many small computer systems plus specialized software, developed by BRS, designed for online data entry, retrieval, and remote transmission of bibliographic data. A powerful text processing system is also provided by BRS to facilitate the production of printed materials.

The online data entry system is specifically designed for the conversion of source documents into a computer readable form. The software is designed with sufficient flexibility to accomodate multiple databases without modification. Although the data entry system can readily be used for the collection of non-bibliographic data, it is tailored for the processing of bibliographic data. The major components of the online data entry software are the following modules:

- Interactive form definition module

- Data entry module
- Document revision module
- Document deletion module
- Abbreviation module
- Print module
- Remote data transmission module
- Disk utility module

The interactive form definition module permits the user to define a formated screen for the entry of data. A form name is specified and for each field of data to be entered, the user defines the field name, location on the screen, field length, and editing requirements. The editing requirements include designation as a required field for this document type, minimum and maximum field length, and mode (alpha, numeric, or both). A form definition is entered into the system only once for each document type and is automatically generated when in data entry mode.

A sample form definition session is described below. The system dialog is in capital letters and the user response is underlined.

```
ENTER FORM NAME                                  SAMPLE

ENTER FIELD NAME                                 TITLE

ENTER MIN FIELD LENGTH                             3

ENTER MAX FIELD LENGHT                           300

ENTER MODE:  A=ALPHA, N=NUMERIC
             X=ALPHA/NUMERIC                       X

ENTER SCREEN, PAGE, ROW, AND
      COLUMN NUMBER                            1, 2, 5


DEFINE FIELD 2

ENTER FIELD NAME
      :
      :
      :
DEFINE FIELD 4

ENTER FIELD NAME                                 ..END
```

At the end of a form definition session the system displays the form definition in the following format:

DEFINITION OF FORM SAMPLE

FIELD NAME	FIELD NUMBER	MIN LEN	MAX LEN	MODE	POSITION PAGE	ROW	COL
TITLE	1	3	300	Y	1	2	5
ACCN	2	6	6	N	1	3	5
DATE	3	*0	6	N	1	3	15
AUTHOR	4	3	400	A	1	4	5

* a '0' length defines an optional field

When data is to be entered into the system using the form SAMPLE, the user enters the command, "..PDS SAMPLE," and the following form is displayed on the screen:

```
                PDS DATA COLLECTION SYSTEM
                    FORM = SAMPLE          PAGE 1

     TITLE :
     ACCN  :                        DATE:
     AUTHOR:
```

The system automatically positions the cursor at the beginning of the first field and will skip to the first position of the next field when the user hits carriage return. If data is entered within a field that does not conform to editing conventions, a message is produced at the bottom of the screen and

the cursor remains fixed at that field position. Characters may be inserted and deleted within each field through the movement of the cursor in combination with special function codes.

The document revision module retrieves an existing document by accession number and displays it according to the appropriate form definition. Data within fields may then be revised or deleted, and the modified document returned to the file.

The document deletion module will delete an entire document from the data collection file.

DOCUMENT DELETION MODULE

Sample Dialog

ENTER FORM NAME: SAMPLE

ENTER DOCUMENT NUMBER: 104682

DO YOU WISH TO REVIEW DOCUMENT PRIOR TO DELETION: NO

DOCUMENT 104682 DELETED ON 05/10/78

The abbreviation module will automatically convert codes entered in the data entry module into full text phrases. For example, if a user enters the code SETM, the system will insert the phrase, "secondary education training methods" in the appropriate field for a document on the data collection file.

ABBREVIATION MODULE

Sample Dialog

```
..RUN ABREY
DO YOU WISH TO REVIEW CURRENT ABBREVIATIONS?   YES

SEQ
NO.          ABREV          FULL TEXT
1            @SETM          SECONDARY EDUCATION TRAINING
                            METHODS
2            @NYSED         NEW YORK STATE EDUCATION
                            DEPARTMENT
3            @CM            COST MEASURES

END OF ABBREVIATION LIST

DO YOU WISH TO MODIFY CURRENT ABBREVIATIONS?   NO
DO YOU WISH TO CREATE NEW ABBREVIATIONS?       YES
ENTER ABBREVIATION:                            @STR
ENTER TEXT:                          STUDENT TEACHER RATIO

ENTER ABBREVIATION:                            ..END
```

The print module is used for the printing of documents resident on the data collection file. It operates asynchronously with other functions once the appropriate commands have been entered. A print specification statement is entered using the form definition format described in the data entry module.

PRINT MODULE

Sample Dialog

SPECIFY FORM NAME:	SAMPLE
SPECIFY DOCUMENT SELECTION:	2, 1-4082
1. PRINT ALL DOCUMENTS	
2. PRINT DOCUMENT RANGE	
3. PRINT DOCUMENT X	
SPECIFY PRINT OPTIONS:	2
1. PRINT ALL PARAGRAPHS	
2. USE PRINT DEFINITION	
ENTER PRINT FORM DEFINITION	REPORT-1

The data transmission module transfers data collection records from the data collection file to the BRS system over direct dial or telenet facilities. It operates asynchronously with other system functions.

DATA TRANSMISSION MODULE

Sample Dialog

ENTER FORM NAME: SAMPLE

SPECIFY TRANSMISSION OPTION: 2,1-104082

1. TRANSMIT ALL DOCUMENTS
2. TRANSMIT DOCUMENT RANGE
3. TRANSMIT SINGLE DOCUMENT

DOCUMENTS ARE BEING TRANSMITTED TO BRS

The disk copy module provides the facility of copying a data collection file from one disk to another or to tape.

DISK COPY MODULE

Sample Dialog

DATA COLLECTION UTILITIES LOAD DSKC

SPECIFY OPTION 2, 1 - 6

1. COPY FILE
2. COPY DOCUMENT RANGE
3. COPY DOCUMENT

SPECIFY FROM TO ADDRESS: FILE 6, FILE 8

Additional software is being developed which provides enhanced capability to online searching of BRS databases through the PDS/1 System. These features include the ability to automatically expand treewords into terms, offline output transmission to local disk files and retrieval from local offline output files.

The text processing software provided by BRS on the PDS/1 System include the following features:

- Retrieval of a document by document number
- List documents in page mode (one page at a time)
- Page forward and backward by page, line, half page, or top page
- Insertion or deletion of character strings within a line
- Insert of lines between existing lines
- Deletion of a portion of a line, a line, or ranges of lines
- Retrieval of character strings within a document
- Copy or move a line or a group of lines from one location to another
- Renumbering of documents
- Saving of original document and modified document
- Camera ready text print routines

The disk operating software provided with the PDS/1 System permits the concurrent execution of up to 256 jobs and includes the following functions:

- Interactive basic compiler
- Assembler
- Linkage editor
- Automatic program segmentation

- Debugging aids
- Disk management
- Disk access methods
  - BDAM
  - QSAM
  - BSAM
  - ISAM
- Device independence

The system utilities provided with the PDS/1 include the following:

DYSTAT - dynamic status display of all jobs.

DEVTBL - allocates device codes to the system.

LPTSPL - line printer spoolier.

ATTACH - attaches job to a terminal.

DETACH - detaches job from a terminal.

FORCE - forces terminal input to another job.

WAIT - stalls execution of a batch program.

KILL - stops execution of a batch program.

SUSPND - puts user's job to sleep.

REVIVE - awakens user's job.

SETPRI - sets priority level of a job.

MEMORY - allocates a memory partition.

SYSTAT - gives user current status of each job in the system.

SYSACT - logs new users and passwords onto system.

MEMTES - memory test.

MAKE - creates a file on disk.

TXMTF - letter writing text formatter.

COPY - copies disk files.

DSKCPY - creates backup disks.

DIR - lists contents of disk by file name.

TYPE - prints disk file on terminal in ASCII.

DSKDMP - dumps disk records on terminal in octal.

ERASE - erases a disk file.

LOAD - loads disk file into memory.

SAVE - save program from memory on disk.

LOG - user logs in on system.

LOGOFF - user signs off.

HARDWARE:

The primary hardware component of the PDS remote computer systems are described below. The basic PDS/1 System consists of a 16-bit micro processor, 48 thousand bytes (48k) of random access memory (RAM) and 600 thousand bytes of disk storage. The basic configuration also includes two visual display terminals and a printer which produce a high quality, photo ready copy. The PDS/1 hardware can readily be expanded to include 256k of RAM, 18 terminal/printer units and 1.2 billion characters of online disk storage.

HARDWARE COMPONENT DESCRIPTION

CPU

- 16 bit micro processor manufactured by Alpha Micro Systems.
- Instruction set is very similar to the popular PDP-11 minicomputer manufactured by Digital Equipment Corporation.
- This 16 bit processor interfaces with the standard S-100 bus.

Terminal/Printer Serial I/O

- The basic PDS/1 provides six serial I/O ports for terminal/printer and modem interfacing. Each port is a fully programmable RS-232 port with 16 selectable baud rates up to 19,200.
- Additional serial ports can be added, in groups of six to accomodate up to 18 devices.

Floppydisk Controller and Drives

- The basic system includes the AM201 disk control, with a dual PerSci floppy disk drive. The PerSci disk uses voice coil positioning which is five to seven times faster than stepper motor positioning used in most floppy disk devices.
- Track to track access is 10ms.
- Transfer rate is 250 kilobits per second (approximately

32,000 characters per second)

- Using IBM compatible format, the storage capacity per drive is 243k bites. The optional format used by BRS allows approximately 300k per drive.

Hard Surface Disk Controller and Drives

- The PDS/1 System will accomodate a variety of hard disk drives manufactured by Control Data Corporation and Calcomp Corporation. The storage capacity of these units vary from 10 to 200 million characters with a maximum configuration of 1.2 billion characters.

  The disk controllers for these units have been specifically designed to interface with the 16 bit AMI00 CPU used in the PDS/1.

Printers

- The basic PDS/1 System includes a Diablo (model 1630) printer capable of producing a 'camera ready' quality print. This device has both pin and friction feed hardware, with a maximum print speed of 45 characters per second. The PDS/1 System will also support other line printers which use the standard RS-232 interface.

Terminals

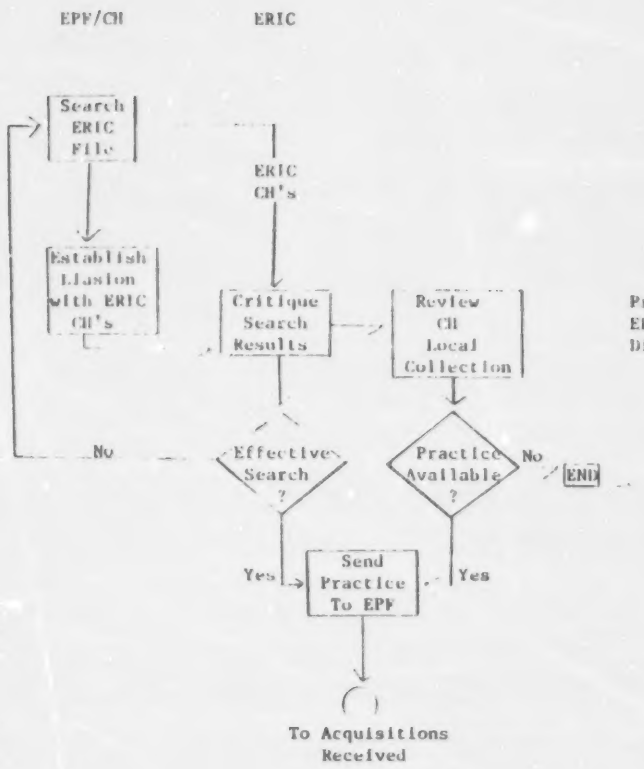
- The basic PDS/1 System includes two visual display terminals which display 24 lines of 80 characters. These terminals have the standard upper and lower case ASCII character set, and data rates of 300 to 19,200 baud. The PDS/1 System can accomodate most terminal which use the ASCII character set and the standard RS 232 interface.

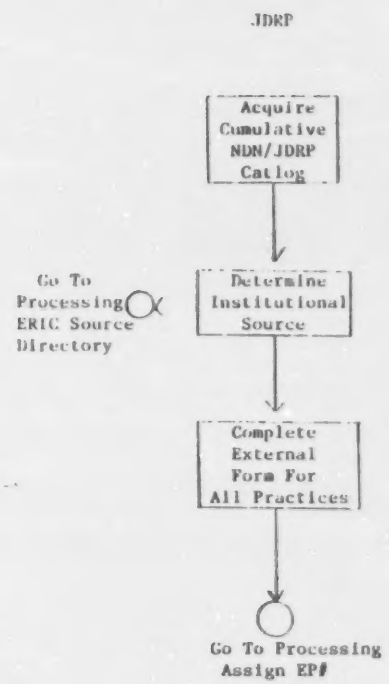
SECTION G

VOCABULARY DEVELOPMENT AND MAINTENANCE

It has been determined that the descriptors used in the EPF will come from the ERIC Thesaurus. The new descriptors will be merged into the Thesaurus proper and will not be placed in separate section nor be color-coded to accentuate their difference. Therefore, personnel in EPF/CH will need to familiarize themselves with the Thesaurus and Section #8 of the ERIC Processing Manual which is concerned with Vocabulary Development and Maintenance. A test of significant rules from the manual are noted below.

START UP ACQUISITIONS




JDRP
Go To Processing ERIC Source Directory
Acquire Cumulative NDN/JDRP Catlog
Determine Institutional Source
Complete External Form For All Practices
Go To Processing Assign EPF

START UP ACQUISITIONS

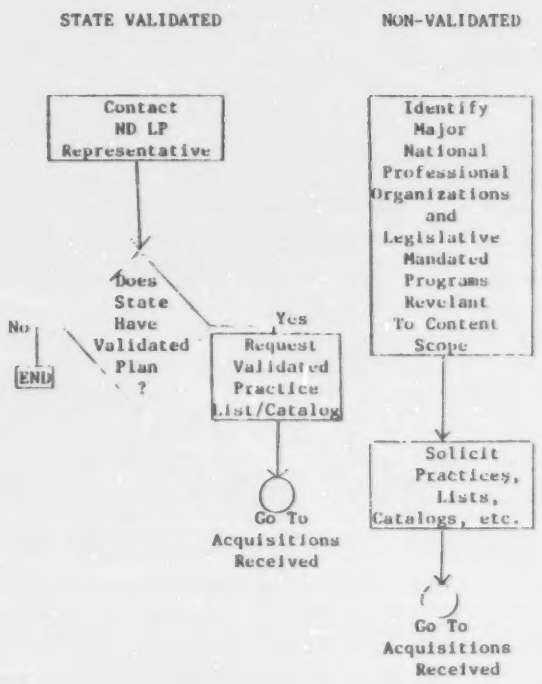


Figure 1

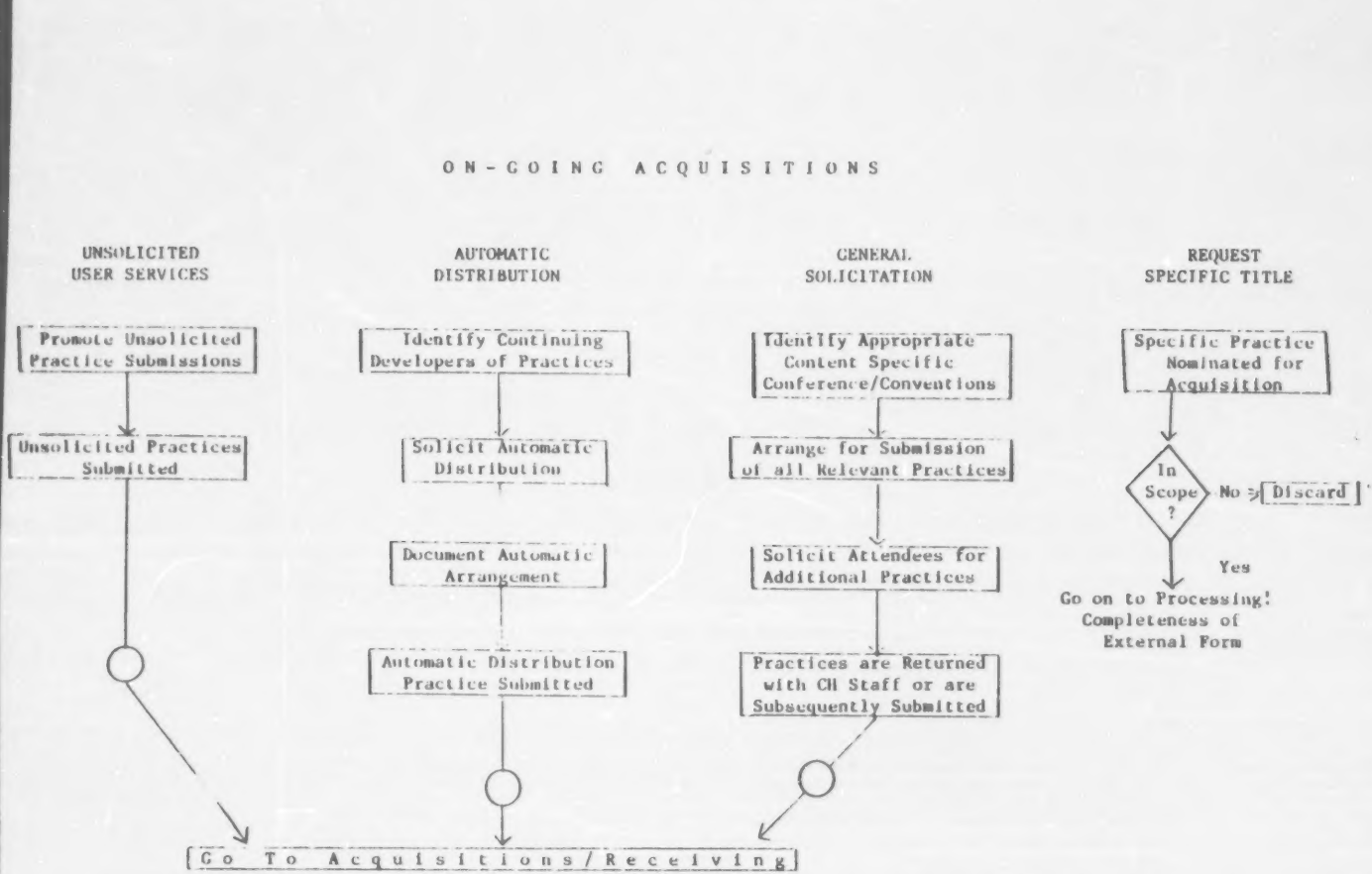

ON-GOING ACQUISITIONS
UNSOLICITED USER SERVICES
AUTOMATIC DISTRIBUTION
GENERAL SOLICITATION
REQUEST SPECIFIC TITLE
Promote Unsolicited Practice Submissions
Unsolicited Practices Submitted
Identify Continuing Developers of Practices
Solicit Automatic Distribution
Document Automatic Arrangement
Automatic Distribution Practice Submitted
Identify Appropriate Content Specific Conference/Conventions
Arrange for Submission of all Relevant Practices
Solicit Attendees for Additional Practices
Practices are Returned with CH Staff or are Subsequently Submitted
Specific Practice Nominated for Acquisition
In Scope ?
No
Discard
Yes
Go on to Processing! Completeness of External Form
Go To Acquisitions/Receiving

Figure 2

A C Q U I S I T I O N S

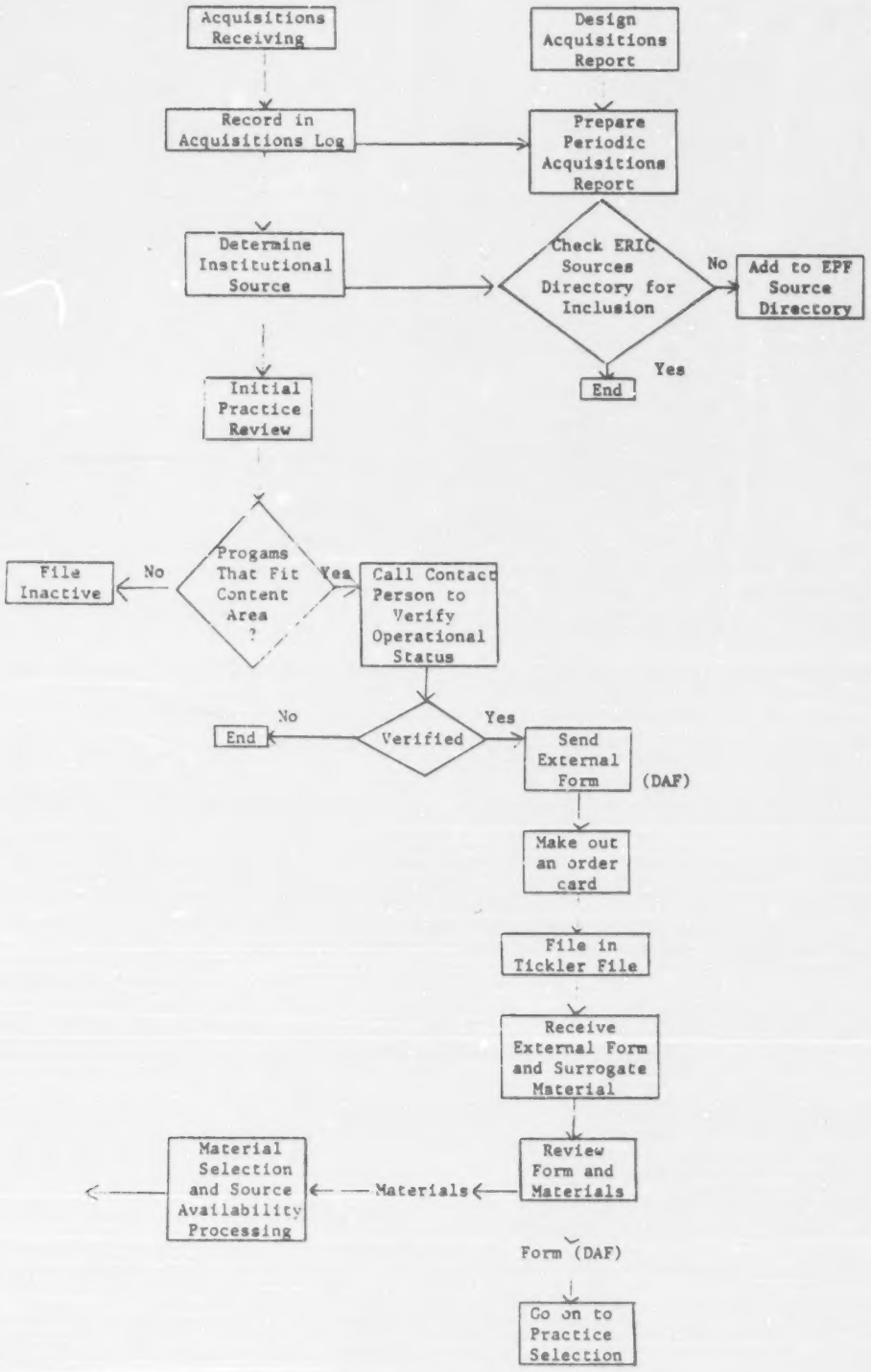


Figure 3

Selection
Review practice for type (DAF-external form) criteria
Type Criteria
Curriculume materials (eg. textbooks, films, games, etc.
Managerial practice
Testing instruments
Needs assessment Tech.
Community involvement programs
Inservice
Individualized education
Alternative programs
Review practice for quality of content
Quality Criteria
Contribution to practice knowledge
Relevance
Innovativeness
Thoroughness of practice documentation
(Transportability and Implementation)
Relationship to priorities at various levels
Utility
Timeliness
Credibility of Source
Feasibility
Cost
Autonomy of resource
Review parctice for other citeria
Other Criteria
Contact person
Stability
Site availability
Core materials available
Go on to processing

Figure 4

PROCESSING

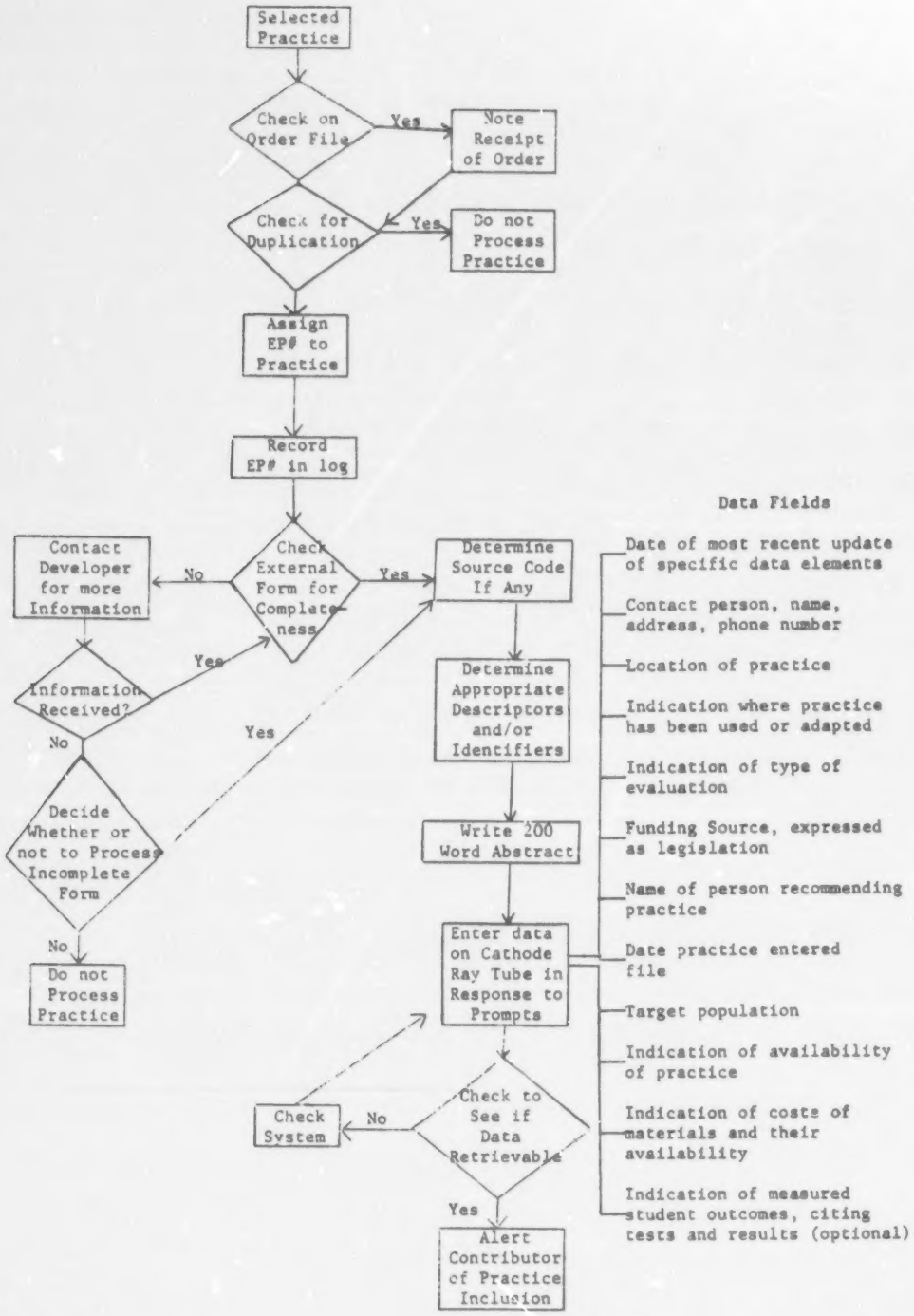

Selected Practice
Check on Order File
Yes
Note Receipt of Order
Check for Duplication
Yes
Do not Process Practice
Assign EP# to Practice
Record EP# in log
Check External Form for Completeness
No
Contact Developer for more Information
Information Received?
Yes
No
Decide Whether or not to Process Incomplete Form
No
Do not Process Practice
Yes
Yes
Determine Source Code If Any
Determine Appropriate Descriptors and/or Identifiers
Write 200 Word Abstract
Enter data on Cathode Ray Tube in Response to Prompts
Check to See if Data Retrievable
No
Check System
Yes
Alert Contributor of Practice Inclusion
Data Fields
Date of most recent update of specific data elements
Contact person, name, address, phone number
Location of practice
Indication where practice has been used or adapted
Indication of type of evaluation
Funding Source, expressed as legislation
Name of person recommending practice
Date practice entered file
Target population
Indication of availability of practice
Indication of costs of materials and their availability
Indication of measured student outcomes, citing tests and results (optional)

Figure 5

Significant Rules of ERIC which apply to the EP File

1. The total indexing vocabulary consists of both Descriptors and Identifiers. Descriptors and Identifiers provide tags or handles for the subject concepts dealt with by practices stored in the EPF. A term can be established in the EPF vocabulary only if the concept it represents is found in actual practices processed by the system.

2. Descriptors are formally controlled, structured into hierarchies, and cross-referenced. References are made from synonyms and near-synonyms to preferred word forms. All Descriptors are displayed in the Thesaurus of ERIC Descriptors, which is available in four sequences: Alphabetic Display, Rotated Display (obviates the need for inverted entries), Hierarchical Display, Descriptor Group Display. Descriptors may be single or multi-word terms. Multi-word terms are justified whenever single-word terms cannot adequately describe concepts which are acceptable and meaningful within relevant user groups.

3. The Descriptor Justification Form (DJF) must be used to enter (or modify) Descriptors in the Thesaurus once the EPF file is up and running. The DJF permits entry of possible Synonyms (UF), Broader Terms (BT), Narrower Terms (NT), Related Terms (RT), a Scope Note, and a Descriptor Group Identification code (mandatory). Full justification must be provided on the DJF for all candidate Descriptors, including authorities cited and definitions. A Scope Note is a brief statement of intended usage, for the purpose of either restriction or explanation; they are not intended as formal definitions. Scope Notes are highly recommended for terms whose meaning is not completely self-evident.

4. Thesaurus hierarchies are subject to the following basic rules:

   - The BT-NT relation is one of class membership. An NT must be entirely a member of the class defined by its BT.
   - Close conceptual relationship among Descriptors not in the same hierarchy should be displayed via the RT cross-reference.

. All cross-references must be reciprocal, i.e., for every entry, a corresponding complementary entry must appear elsewhere. That is, for every USE entry, there is a UF entry; for every NT, there is a BT; for every BT, there is an NT; for every RT, there is another RT.

5. The principal mechanics of Descriptor construction are as follows:
   . Abbreviations should be avoided; they may be treated as synonyms and cross-referenced.
   . Maximum Descriptor length is 50 characters, including spaces.
   . Noun forms are preferred to verb forms.
   . The plural form is used for "count nouns" (e.g., AUDIENCE PARTICIPATION), about which one may ask "how much?"
   . Descriptors judged to be homographs must have parenthetic qualifiers (e.g., CASE (GRAMMAR)).
   . Descriptors may consist of alphabetic characters, Arabic numerals, left and right parentheses, and blanks (spaces between words). No other special characters are permissible.
   . Inverted entries (e.g., PLANNING, FACILITIES) should be avoided.
6. Identifiers are names of specific entities, e.g., projects, geographic locations, persons, trade names, tests, legislation, equipment, organizations, etc. Identifiers are intended to supplement Descriptors by providing for indexing depth of a specialized nature. Identifiers are not hierarchically structured, cross-referenced, or defined, and they do not appear in the Thesaurus. Standards must be followed in Identifier construction, however, to avoid excessive "scattering" under variant name forms.

Terms needed by the practice file which are not currently in the ERIC Thesaurus may gain access through two procedures. Both procedures will be regulated by the committee of Vocabulary Improvement Program. This program solicits vocabulary change recommendations from all components and users of the ERIC system.

The first procedure to be used will be to present the Committee with a list of terms which are not presently in the system and are applicable to a practice file. The terms found in the Annehurst Curriculum Classification System are examples of such terms. (See Appendix __ for examples and explanation of Annehurst). If the list is approved, all the new terms would be given to the ERIC lexicographer to place in the ERIC system. Precedent for this action has been set by Women's Educational Equity Network, Pilot Phase from Educational Testing Service.

The second procedure, which follows the initial installation of terms in ERIC, will use the procedure already in place in the ERIC system. This procedure utilizes the ERIC Descriptor Justification Form (DJF) and Data Input Form which may be used for entering new candidate descriptors, modifying scope notes, or providing cross-references for existing descriptors. (See Figure 1 for an example of the ERIC DJF.)

The recommended changes are then sent through a process described in Figure 2, the Thesaurus Change Procedure. This procedure is the traditional one currently used in the ERIC system.

If a controversy occurs over a term or the voting results from the Vocabulary Review Group reveal that the members are equally divided for and against the change, the change is referred to the TAP (Thesaurus Advisory Panel) for deliberation and a decision of inclusion or exclusion. The ERIC hexicographer has the final word on changes should the TAP not come to a decision.

The membership composition of both the Vocabulary Review Group and the TAP should be reviewed for the number of "practice" oriented users. If the groups are lacking such members, an effort to establish them on both committees should be made.

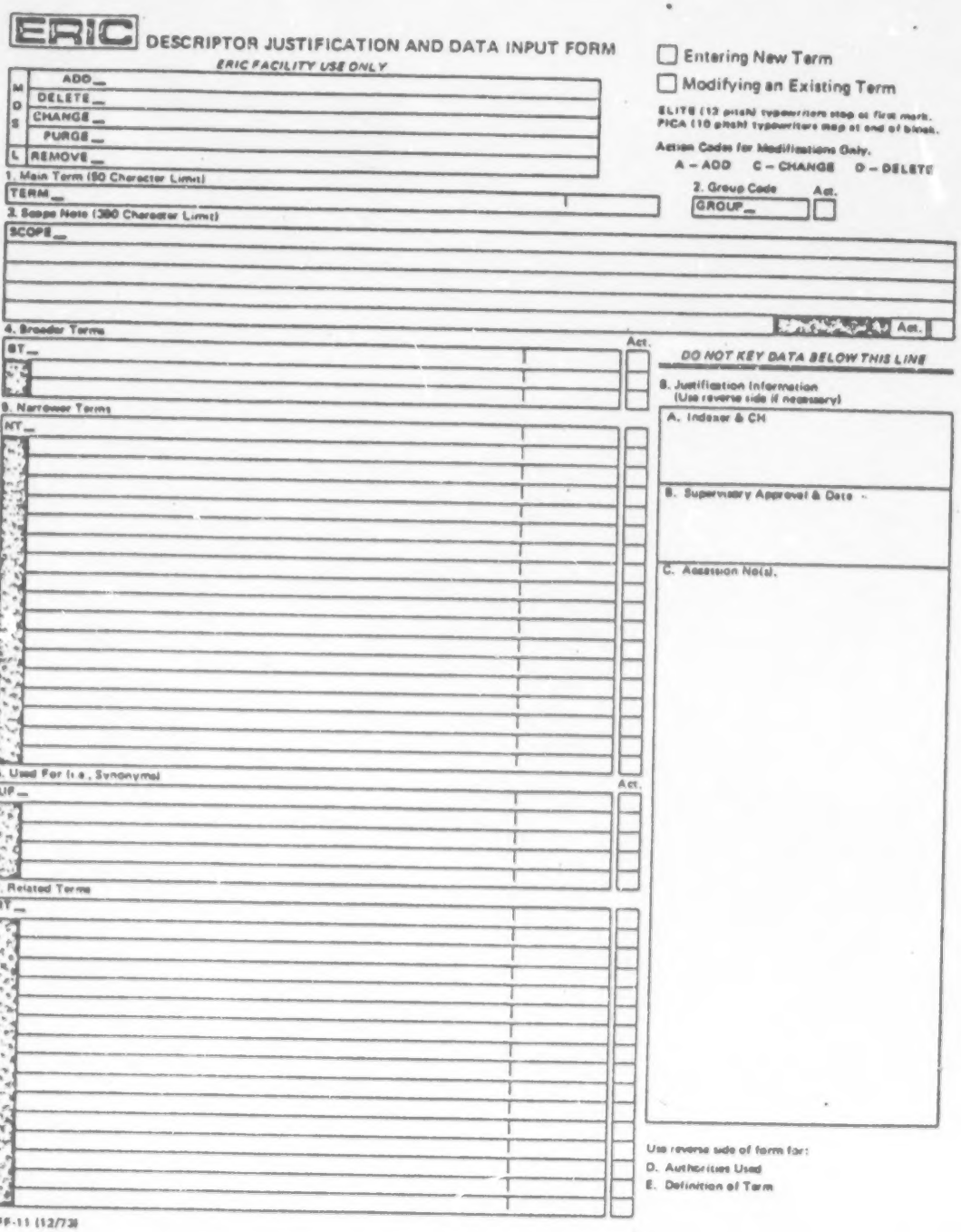


FIGURE 8-1
ERIC DESCRIPTOR JUSTIFICATION FORM

ERIC DESCRIPTOR JUSTIFICATION AND DATA INPUT FORM

D. Authorities Used

E. Definition of Term

EFF-11A (12/73)

FIGURE 8-1
Sheet 2

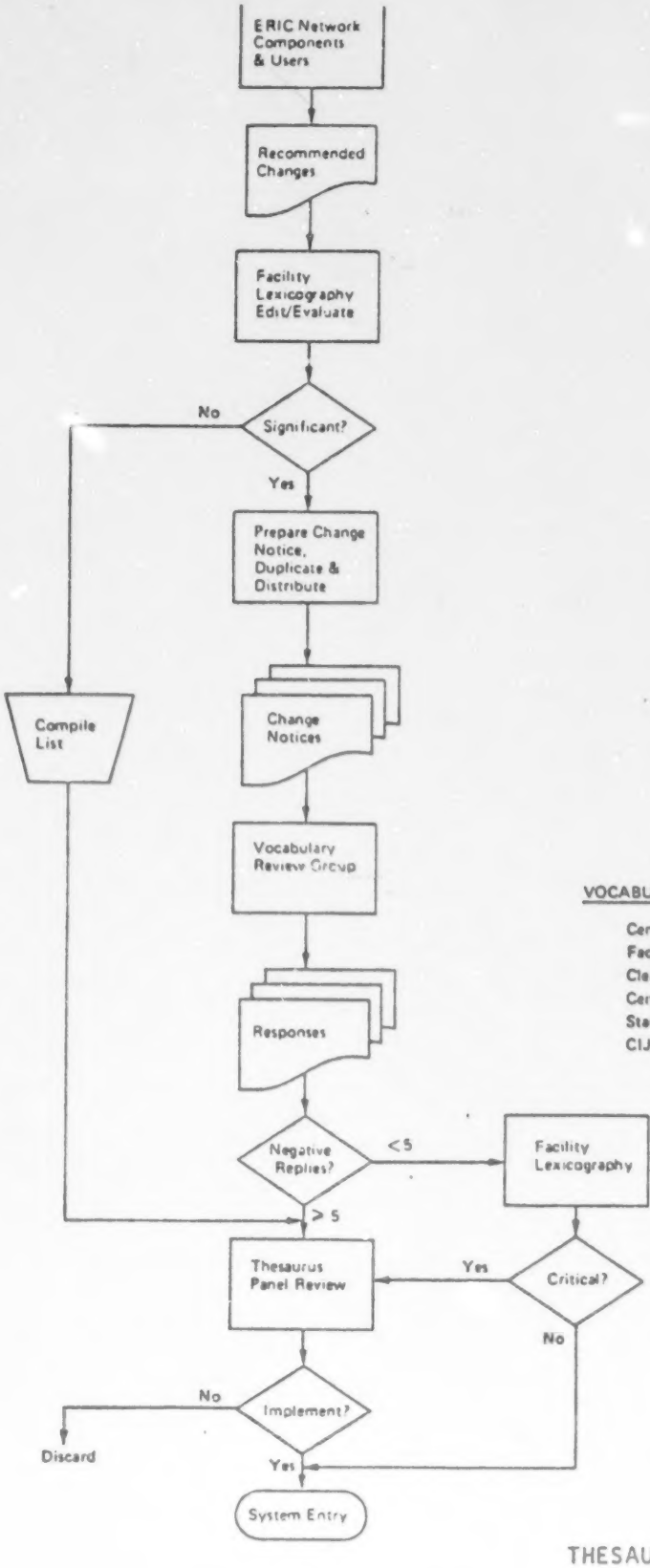


FIGURE 8-2
THESAURUS CHANGE PROCEDURE

DOCUMENT RESUME

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ABSTRACT

A detailed work plan is presented for the conduct of Phase II activities, which are concerned with creating a pilot test file, conducting a test of it, evaluating the process and input of the file, and preparing the file management plan. Due to the outcomes of activities in Phase I, this plan was revised from an earlier outline. Included in the document is a review of Phase I, an overview of methodological and logistical problems, and a statement of work and technical approach; this latter section is subdivided into areas that discuss the rationale for a simulated clearinghouse, the rationale for content options, project management, and objectives and activities associated with the pilot test file. Appendices present lists of members of the Project Advisory Group and the Internal Project Advisory Committee, the Pilot Test Practice File Design, and the National Institute of Education guidelines for the pilot test. (JD)

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Revised Phase II Plan for the National Education Practice File Development Project Including: Creation; Pilot Testing; and Evaluation of a Test Practice File

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PRODUCT 1.7 1.8 (Product 1.6 Appended)

Submitted by Gregory Benson, Project Director,
as part of
NIE Contract #400-77-0095

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IR006785

June, 1978

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Revised Phase II Plan for the National Education Practice File Development Project Including: Creation; Pilot Testing; and Evaluation of a Test Practice File

SECTION I

Executive Summary

As projected in the original proposal submitted to NIE by BRS in the Summer of 1977, the development of files for educational practices and for human resources has proceeded at a rapid pace. This growth is accompanied by a certain number of problems usually associated with rapid expansion - fragmentation, unnecessary duplication, and incompatibility. The Education Practice File Development Project can play an important role in addressing these problems by producing a superior system which others will choose to adopt. The pilot test designs presented in this document for Phase II represent the next major step in implementing a quality system for the developing nation-wide dissemination system.

Phase I activities were addressed to the development of a design for the Practice File and for a pilot test of its operation. Using a variety of informal interviews and group discussions with educators and educational organizations, BRS identified the major options with respect to content, selection, acquisitions, and other file features. A parallel study of existing information products and services as well as a thorough review of the literature were undertaken.

Based upon this material BRS, in conjunction with a Project Advisory Committee (PAG), prepared a screened idea list for all features of the proposed new file. Following a review by the NIE Internal Advisory Committee (IAC), BRS prepared an analysis of alternatives for each feature and a suggested file design for the pilot test. Following a second review by the IAC, BRS developed a detailed file design for the pilot test, a formative and summative design for evaluating the pilot, and a detailed proposal for the conduct of Phase II activities.

As was the case with Phase I, a small number of methodological and logistical problems will need to be addressed in Phase II. New and expanded relationships will need to be established in order to ensure that such areas as acquisitions and user products and services are developed adequately. New incentives and outreach activities will need to be employed in order to establish closer ties with the practitioner community. Relationships with the existing ERIC Clearinghouse structure will need to be maintained.

Orientation and training of new users also will be an important requirement of Phase II activities. Unless information center personnel understand and can use the File, the pilot test will be inadequate. Finally, the pilot test will require a rigorous evaluation if we are to inform future refinement and expansion of the File during field testing and full-scale operations.

The statement of work for Phase II propose that a mock clearinghouse be established for the pilot test to inform NIE on this aspect of file implementation and operation. Proposed content options deviate from the simulation proposed in the original proposal. The four options presented include NDN/SEA validated, locally developed, and commercial materials, as well as human resources. File size is expanded for each option as is the actual test period. While four options are presented, BRS recommends exercising 1, 2 and the first nine months of 3 as a minimal pilot test effort. Key decision points for NIE are identified by BRS.

Because it is necessary to keep the acquisitions effort and the file size manageable during the pilot test, BRS proposes to limit the subject area focus for SEA validated, locally developed and commercial materials to the competency based area of citizenship/consumer education. This content focus will not be applied to NDN validated materials. This content selection criterion is based on the high interest in this area and the availability of materials and programs.

The conduct of the pilot test will include the use of the file in approximately twelve (12) sites located in various educational organizations and agencies throughout the country. Coordination of all activities of the network of sites will be accomplished by the Merrimach Educat.on Center (MEC). Activities for the pilot test include : (1.) selecting a sample of sites for participation; (2.) training site personnel in the use of the system; (3.) providing on-going support services to all sites; and (4.) evaluating the use of practice information.

An extensive evaluation of the development of the system, the implementation process and the outcomes of file use also will be undertaken. BRS proposes that a rigorous formative and summative evaluation be undertaken to provide objective documentation and analysis of the development and implementation of the file and to collaborate with the developers so that evaluative data are used within a framework of facilitative decision-making. Indicators for both the design and the installation stages will guide the formative evaluation. Evaluation questions for each file feature will guide the summative evaluation.

As was the case during Phase I, BRS shall rely heavily upon the advice of the Project Advisory Group (PAG) for reactions to draft design products and for specific consultant assistance. Regular meetings of the PAG and the LAC will be scheduled during Phase II. The scheduling of such meetings will be done so as to facilitate decisions by NIE on various policy questions. Gregory Benson will serve as project director and will be assisted by Charles Mojkowski in coordinating PAG and LAC activities and in preparing project documentation. Benson also shall oversee operations of the simulated clearinghouse. Richard Lavin will coordinate pilot test network activities and Ronald Szczypkowski shall coordinate evaluation activities.

SECTION II

Introduction

A

As projected in the original proposal submitted to NIE by BRS in the Summer of 1977, the development of files for educational practices and for human resources has proceeded at a rapid pace. The number of state education agencies (SEAs) initiating such development has increased substantially and these agencies have been joined by Regional Exchanges (Rx's), numerous federal programs (Teacher Corps, Special Education, Vocational Education) and by several national organizations (NEA, AFT, etc.). Such an accellerated growth rate substantiates the interest and need for automated storage and retrieval of practice related information.

This growth is accompanied by a certain number of problems usually associated with rapid expansion - fragmentation, unnecessary duplication, and incompatibility. The proliferation of automated data base development has resulted in a variety of file configurations. The lack of compatibility of file designs and operational procedures will hamper efforts to produce a nationwide data base unless the Education Practice File Development Project can produce a system which accommodates existing and developing systems or develops a superior design which others will choose to adopt. Whatever the outcomes of these efforts, it is clear that the pilot test conducted by BRS in Phase II will determine whether the federal level can produce the superior file which others will use.

Phase I activities were concentrated on designing such a superior file. The design effort was conducted in collaboration with educational disseminators from throughout the country. These relationships will be maintained in Phase II during the pilot test. During Phase I ideas for file content and format were solicited from a wide variety of interested educators and educational agencies. Review and analysis of research and practice literature was conducted to inform the design effort. A Project Advisory Group (PAG) (see Appendix A) was established by BRS to review design outcomes and recommend a file configuration for pilot testing and for ultimate full-scale use. An NIE Internal Advisory Committee (IAC) (see Appendix B) was formed by the NIE project officer to advise her on the selection of a file design for pilot testing. Both groups provided valuable guidance during Phase I and were in nearly complete agreement concerning the design for the pilot test.

The outcomes of Phase I activities are reviewed in Section III of this document. The file design recommended by both the PAG and the IAC for the pilot test is described in Product 1.6 attached as Appendix C. During Phase I, a number of issues were raised concerning the design, development, and implementation of the Practice File. These issues are discussed in Section IV and will be addressed during Phase II.

B

The purpose of this document, Product 1.8, is to present a detailed work plan for the conduct of Phase II activities. Although a simulated outline of such activities was presented in the original BRS proposal, the outcomes of Phase I activities have created a need to revise the Phase II plan. This revision is consistent with the language of the RFP which states that, "the Phase II work plan will reflect all justifiable deviations from this plan" (p. 21).

As a result of Phase I activities and outcomes, BRS is proposing several major amendments to the simulated work plan presented in the original proposal. These amendments are presented as a series of content options which are graduated in terms of the level of complexity and of the resources required. The basic option presented is similar to that described in the original proposal. Changes in this option include lengthening the test period, expanding the content and increasing the level of documentation and evaluation effort to focus on process variables in addition to user satisfaction and impact measures. Options also vary with regard to file and audience size. Further research of unresolved issues is built into some of the options so as to inform expansion of the Practice File over time. All of these options are described in detail in Section V. Also presented in Section V as Objective #1, is a rationale for conducting a simulation of a clearinghouse during the pilot test.

The pilot test will be designed to produce information about the technical and organizational variables related to the development and maintenance of a national Education Practice File. It is important to recognize, however, the limitations of a pilot test in responding to all of NIE's information needs. Some issues cannot be answered in a test where volume of content and audience are so constrained. These questions will need to be answered in a subsequent field test of the file. The design presented by BRS allows for an incremental approach, proposing ways for NIE to move beyond the pilot test based on experience. Such an approach will facilitate the transition from pilot test to field test to ultimate full scale implementation.

The pilot test is an important source of information concerning many of the technical issues relating to the development of a file. The conduct of Phase II will be organized so as to obtain the maximum benefits from the test. A comprehensive documentation and evaluation system is proposed to inform NIE. This system is described in detail as Objective #3. The network of users will be managed as a discrete activity so that adequate attention is given to organizing and maintaining relationships for awareness, orientation, trouble-shooting and service. These activities are described as Ojbective #2. The organization of all Phase II activities is described in detail in Section V.

SECTION III

Review of Phase I

The expressed purpose and objectives of Phase I were to (1.) select a file for development which optimally satisfies four objectives (utility, technical feasibility, policy constraints and cost efficiency), and (2.) produce design specifications for developing and testing a file. The RFP specifications called for the submission of eight products (in addition to monthly progress reports) during the six-month Phase I period. BRS requested and was granted a two and one-half month no-cost extension of Phase I to more efficiently undertake and complete the required products.

This review of Phase I is summarized by product, indicating the (1.) RFP requirement for the product (2.) the BRS activities undertaken to generate the product, and (3.) a summary of the findings or outcomes embraced by the product.

Product 1.1 (File Idea List)

RFP Requirement:

> This product will show the range of alternatives for defining the content coverage of a bibliographic reference file. It will include a list of fifteen or more ideas for defining the content coverage for new reference files in the domain of education practice-related information (p. 11).

BRS Activities:

Since the RFP did not allow for any formalized data collection requiring OMB clearance during Phase I, BRS undertook a concentrated schedule of personal interviews and group discussions across the country. These discussions put project staff in direct contact with the following agencies:

- Education Commission of the States
- National Education Association
- Council of Chief State School Officers
- Far West Educational Laboratory
- Northwest Educational Laboratory
- San Mateo Educational Resource Center
- University of Southern California (NIMIS)
- New York State Education Department

Also, representatives of the following educational agencies or programs were interviewed in group or individual sessions:

- State Education Agencies
- Intermediate Education Agencies
- Local education agencies
- Research and Development Exchange program
- Higher educational agencies
- ERIC clearinghouses
- Educational resource centers
- Teachers centers
- National Diffusion Network

-Women's Equity Project

-Research and Development Utilization program

-State Capacity Building program

-City school districts

-Commercial publishers

-Educational consulting firms

Visitations and meetings were scheduled with agencies, programs and individuals that represented educational areas complementary to those areas represented by the Project Advisory Committee. Advisory Committee members provided their input and generation of ideas at the initial meeting of that group held in Washington, D. C. on December 14 and 15, 1977.

In all cases, discussions with individuals or groups centered around the file features of content, acquisitions, selection, processing, file maintenance, vocabulary development, source document availability, search and retrieval capability, user products and user services. The consistent focus of discussion on those file design features throughout Phase I documentation provides a framework for relating all Phase I products and facilitates a historical tracing of the file design specifications proposed for development and testing during Phase II.

Findings/Outcomes

A summary of file feature suggestions provided by educators representing the agencies mentioned above follows:

Content

-Major variable relates to where a source (specific file content) falls on the "Autonomy of Resource Continuum" - Can a teacher use it without technical assistance and/or a large budget.

-Other variables relate to level, content, media type, availability, and level of evaluation.

Acquisitions

-Interactive vs. limited interactive vs. one-way technically mediated communication links are alternatives related to the interaction between acquisition organizations and the file operational center (no technically mediated link is also an alternative which is representative of the current ERIC system).

-Nationally vs. regionally vs. State vs. intermediate based core of acquisition efforts are alternatives related to an ultimate design configuration.

Selection

-With regard to practice performance criteria, suggestions were on a continuum from those having only recent, hard data demonstrating success to, those with no data, or data demonstrating failure.

-With regard to the selection process, suggestions were on a continuum from centralized authority to, decentralized, direct input authority. Approximately mid-point in that continuum might be a multi-level system of referral upward to a centralized authority with screening taking place at each level.

Processing

-Should be ERIC compatible with the inclusion of new information fields as is appropriate to the content decided upon.

Vocabulary Development and Maintenance

-Use ERIC vocabulary with the addition of new "practice-oriented" terms and provision for more efficient term addition or deletion.

File Maintenance

-Online file content modification capability was felt to be a necessity. Extent and organization of this online capability shall be determined by resources available.

Source Availability

-For a document-based resource, the preference was for local availability of the actual documentation through resource centers. Funding restrictions shall probably dictate microforms of printed source material.

-For non-print resources, the preference was also for local availability. Funding restrictions will probably dictate at least regional depositories.

-For practices whose source is really a process, it was suggested that the developers have the responsibility for dissemination and/or technical assistance much the same as NDN Demonstrators have now.

Search and Retrieval System

-The alternatives suggested here related primarily to format modifications and did not appear to be constrained by any technical limitations.

User Products and Services

-With regard to products, suggestions were consistent with products currently being produced by ERIC clearinghouses with the exception of video or audio distribution of awareness level information on many practices contained in the file.

-With regard to services, a strong training and orientation function was felt to be necessary. Also, the intermediary service function was felt to be critical especially for that content which cannot stand alone.

Organization for Operating the File

Since content and the acquisition procedure shall drive the major portion of the external organization configuration, the emphasis here was placed on what incentives shall be utilized to sustain system collaborative efforts. Mandate, money and mutual benefit (to contributor and system) were suggested as key incentives.

The central organization consisted of a national clearinghouse for educational practices that was complementary to other ERIC clearinghouses and dependent on central ERIC functions to a large degree. The basic technical departure from other ERIC clearinghouses would be the centralization of the database to allow for online updating, purging, and acquisitions input and editing.

Specifics regarding content suggestions, ERIC format modifications and file maintenance procedures can be found in Product 1.1 but generally they relate to content more oriented to the practitioner, information fields to allow for more detailed searching and "real time" file maintenance procedures through use of online capability.

Product 1.2 (Review of Related Information Products and Services

RFP Requirement:

The purpose of this product is to identify existing information products and services with which a new bibliographic reference file in the domain of education practice-related information should be coordinated. (See Objective 3. Section 1.c). It will consist of a brief summary of the existing information products and services which may be related due to similar content coverage, or related design features (p. 11).

BRS Activities/Outcomes

By mutual agreement between BRS and the NIE project monitor, it was decided that this product be prepared in two parts. The first part was designed to fill in possible gaps resulting from not visiting all information centers as part of the activities of Product 1.1 and to determine if in fact the "ideas" generated in 1.1 were duplicative of any existing resources. Brickley and Trohowski of RISE assisted with this initial task and they

found that. . . . "there is no presently existing, practice-based, educational information product or service of a comprehensive nationwide, machine-readable file nature".

Part II of Product 1.2 was not a separate document but rather an extensive literature review, also undertaken by Brickley and Trohoski, that either supported or failed to support alternatives being considered in Product 1.4/1.5 (Preliminary Design Feature Alternatives and Discussion of Their Feasibility for a National Education Practice File). The literature citations generated by Brickley and Trohoski are represented in the bibliography attached to Product 1.4/1.5. This support literature aided greatly in the consideration of the alternatives for implementation during Phase II.

Product 1.3 (Screened File Idea List)

RFP Requirement:

The purpose of this product is to document the decision to select three alternative file ideas. DRG will select three (3) ideas for files in the education practice-related domain from those presented in Product 1.1. The contractor will record those selected and submit that record to DRG (p. 11).

BRS Activities:

The prerequisite activities leading to this product were the creation of Product 1.1 and scheduling a meeting of the NIE Internal Advisory Committee (IAC) and BRS staff. At that meeting held on January 23, 1978, the IAC discussed each file feature (listed under Product 1.1 above) and the alternatives suggested by educators for each.

Outcomes:

For the critical file design feature of "content", the IAC used three criteria eliminating alternatives presented in Product 1.1. They were: (1.) not related to instruction; (2.) some or all documentation is already available through other sources; and (3.) obviously not feasible given the present level of resources, technology and policy problems. The resultant discussion of "content" led to the generic classification used in later documentation which are: (1.) NDN/SEA validated practices, (2.) Exemplary practices, (3.) Non-validated practices including locally developed and commercially developed.

The file features were dealt with in three sets and the alternatives suggested by the IAC for further exploration and feasibility analysis in Product 1.4/1.5 are shown in the following diagram:

Alternatives for Feasibility Analysis

I

Content

- NDN/SEA Validated
- Exemplary
- Non-validated

Acquisitions

- use new ERIC Clearinghouse for all operations
- use existing ERIC Clearinghouse for all operations (one or more)
- use non-ERIC organization for acquisition

Selection

- use learner outcomes w/screening
- review panel
- all practices, cite evaluation where available
- multi-level criteria
- use learner outcomes w/o screening

Source Availability

- abstracts/descriptions only
- abstracts/descriptions and documentation

II

Processing

Include the following information fields:

- Evaluation Type/outcomes
- Funding source
- Location
- Initiation date
- Target population
- Contact person
- Materials availability and cost
- Recommended by
- Replication costs
- Transferability scale
- Extent of TA required
- Material use
- Update info

File Maintenance

- Develop system purge/update capability (explore variations)

Vocabulary Development and Maintenance

- Use ERIC Thesaurus, adding new terms where appropriate

III

Search and Retrieval

- Practice File searchable with ERIC

User Products

- SDI-type newsletter publication
- Audio and/or video presentation of selected practices
- Lists by media
- monthly/annual catalog
- Lists by topic
- Information analysis products
- The "best of the practice file"

User Services

- Online ordering capability
- Online user feedback capability
- General system orientation program
- An -800- phone number

Product 1.4/1.5 Preliminary Design Feature Alternatives and Discussion of Their Feasibility

RFP Requirements:

Product 1.4

PRELIMINARY DESIGN. The purpose of this product is to present a preliminary plan for designing files based on the ideas documented in Product 1.3.

Product 1.5

FEASIBILITY ANALYSIS. The purpose of this product is to provide DRG with the contractor's analysis of each preliminary design. A feasibility analysis will be submitted for each of the three preliminary designs described in Product 1.4. This analysis will address the file objectives shown in Section 1.c. (utility, technical feasibility, policy issues and cost efficiency).

BRS Activities:

At the IAC meeting on January 23, it was agreed that Products 1.4 and 1.5 could be combined for ease and efficiency of preparation.

It was also agreed that, rather than presenting three discrete, full file configurations, each file feature alternative would be discussed independently but in context with other alternatives within the same feature. This was determined because selecting certain file feature alternatives had the effect of limiting what alternatives might be considered from within other file features. This would have led to an endless series of "if then..." propositions exploring each possible combination of feature alternatives. The decision, then, led to Product 1.4/1.5 being presented in two parts, Part I, a discussion of each alternative and Part II, the suggested file design for the pilot test.

BRS produced a draft of Part I and submitted it to the Project Advisory Group on March 1, 1978. On March 16, that group met and (1.) provided further input to the Part I discussion and (2.) through a modified delphi technique reached consensus on the suggested file design to be presented in Part II. BRS then completely recreated Product 1.4/1.5 and submitted it to NIE on April 3, 1978. On April 10, the IAC met to discuss Product 1.4/1.5 and provide BRS with guidance regarding the pilot test parameters.

Outcomes:

With minor exceptions, the IAC accepted the suggested design configuration presented in Product 1.4/1.5. A summary of the recommended guidelines for the pilot test that grew directly out of the meeting on March 10 is attached as Appendix D.

Product 1.6 File Design

RFP Requirements:

The purpose of this product is to provide DRG with one completed file design, for implementation during Phase II. A final design will be submitted for the file selected from among alternatives presented in Product 1.4. The final design will include specifications for the file. Specifications should include the necessary guidance for developing tools, procedures and other elements necessary to actually construct the test file, and user product.

BRS Activities:

With non-contract funds, BRS secured the assistance of Brickley and Trohoski to prepare this product. This was done in order to allow BRS contract staff to devote full attention to Product 1.3 (this document).

Outcome:

Product 1.6 is a more detailed description of the file design suggested in Product 1.4/1.5. It includes guidance for operationalizing the file features inherent in the design. Product 1.6 is attached as Appendix C.

Product 1.7 Evaluation/Test Design

RFP Requirements:

The purpose of this product is to indicate how the file will be tested and evaluated during Phase II. The research plan, and logistical arrangements (e.g., announcing the test service,

delivery of service), work plan and cost estimate will be submitted for approval.

BRS Activities:

BRS had originally proposed that Dr. Richard Lavin coordinate the pilot test activities. Since Dr. Lavin would have that ultimate involvement, BRS, again with non-contract funds, secured Dr. Lavin for assistance in preparing Product 1.7 material

In addition, BRS felt that the evaluation design for the pilot should include not only output or "user oriented" data as required by the RFP, but also formative data to explore and inform project management regarding the adequacy of procedures and relationships required to build the test file. In that regard, BRS, again with non-contract funds, secured assistance from Magi Educational Services, Inc. (Dr. Ronald Szczypkowski) to develop a full evaluation plan in conjunction with Dr. Lavin.

BRS staff met and conferred with the consultants to discuss the parameters of Product 1.7 requirements since it is a significant component of this document (Product 1.8). Final preparation of both Products 1.6 and 1.7, although assistance was secured from outside the contract, was accomplished by BRS staff.

Outcomes:

Product 1.7 requirements have emerged as significant documentation detailing the pilot test and the evaluation design to be utilized during the test period. Product 1.7 material has been merged into Product 1.8 since Product 1.8 must include the planned pilot test and evaluation. The specific sections representing Product 1.7 are Objectives #2 and #3 contained in Product 1.8 (this document).

SECTION IV

Overview of Methodological and Logistical Problems

This section addresses a small number of methodological and logistical problems which were identified in the original proposal or in Phase I activities. Although they are discussed in isolation here, they are addressed within the context of specific Phase II activities in Section V. Problems discussed in this section are not those identified as research questions which the pilot test will investigate or which will be left for the field test. Rather, the problems discussed below relate to relationships for acquisitions (input) and for dissemination (output), to orientation and training, and to documentation and evaluation.

Input/Output Relationships

As discussed in the original BRS proposal, the new relationships which need to be established in an effort of this nature and scope are of such magnitude that a substantial amount of project resources will need to be devoted to them. However technically sound the file design, it is not likely that maximum benefits will be derived unless appropriate relationships with users and others are established. This is particularly true of acquisitions activities. While there is substantial evidence that the output of a Practice File would be useful to practitioners, there is also evidence that they are not as motivated to provide input to the Practice File. Similar efforts (Xerox Curriculum Clearinghouse and the New York State Teacher Developed Materials File) have discovered that practitioners are not disposed to input practices to a file.

Given the difficulty of acquiring practices, it is likely that BRS will need to investigate the use of special incentives to encourage submissions. This problem will not be significant with respect to such established data bases such as NDN and State-validated projects/practices but will be substantial with respect to locally-developed practices. The range of incentives available and appropriate for use at the Federal level is limited. For this reason, it is likely that a national effort would need to make available human resources to actually go into the field and collect and document practices. Incentives might be provided to organizations or agencies comprised of practitioners. BRS will be investigating the use of such incentives for acquisition, depending on the scope of file content allowed for the pilot test.

Another key methodological issue with respect to relationships is that relating to those between the new acquisition mechanism and the existing clearinghouses. If the Practice File attempts to collect locally-developed practices, it is likely to be establishing relationships with practitioner organizations that are already dealing with an existing clearinghouse. Special attention will need to be given to coordination with the existing clearinghouse structure so as to minimize conflict problems. Through the Project Advisory Group, through visits to clearinghouses and through meetings with ERIC Central staff at NIE, BRS will ensure that acquisition activities are orchestrated.

Whatever the content scope of the pilot test file, it is not the case that it will deal with the range of content to be handled during the field test. Given this situation, caution should be taken so as not to raise expectations in the field regarding services to be delivered during the pilot test. It is important that publicity for the project emphasize the controlled nature of the pilot test. BRS staff and consultants will emphasize this point in their relationship - building activities with users and others interested in the project.

Orientation and Training

Despite the fact that the Practice File will be designed using the ERIC system as a foundation, there are several new elements that will require that a rigorous orientation and training system be designed and implemented. Moreover, it is not likely that all of the personnel at the pilot test sites will be familiar with the BRS retrieval system. BRS will use as a core for its training system a tested course in the use of the BRS system. In addition, BRS staff will prepare a special set of modules for orientation and training in search and retrieval procedures for the Practice File.

All training will be conducted by BRS staff in collaboration with the service network management under the direction of Richard Lavin. Dr. Lavin will make overall arrangements for all orientation and training with all sites. Documentation and evaluation of training will be coordinated by Ronald Sczcypkowski.

Evaluation

The principal device for learning from the pilot test will be the documentation and evaluation system. Given the number and complexity of issues and research questions needing to be addressed in the pilot test and in future phases, a major commitment to extensive documentation and evaluation must be made by NIE. Section V, Objective #3 discusses the research questions which BRS recommends for study during the pilot test and proposes a design for responding to them. The design focuses on both formative and summative variables, stressing extensive documentation of procedures, processes and decision situations in addition to more traditional client assessment variables. While the proposed scope is somewhat larger than is indicated in the RFP, BRS believes that the investments made in this activity would yield substantial benefit to inform field test and full-scale operations.

Workload

The sequencing of activities across the four options presented in Section V could be a source of problems if NIE were to choose to implement all four at once. Doing so is not merely a question of adequate resources. What is needed is time to learn from the experiences of developing acquisition relationships with respect to option two. To proceed immediately with the design of procedures for commercial practices and for human resources would entail additional human and financial resources as well as result in an inadequately conceptualized design for both.

To respond to this potential problem, BRS proposes that the initiation of design activities for options three and four be delayed until design work is completed for the internal test for option one and for the acquisitions activities for option two. The details of this sequence are presented in Section V.

SECTION V

Statement of Work and Technical Approach

A. Rationale for the Simulated Clearinghouse

Much discussion has taken place during Phase I regarding the ultimate organizational requirements and location of the Education Practice File. Options under consideration are: (1.) current ERIC CH's absorb Practice File; (2.) a new ERIC clearinghouse be established exclusively for the Practice File; and (3.) an organization outside the ERIC system be responsible for the Practice File. Regardless of the option ultimately selected for formal institutionalization of the Practice File, certain basic activities will be required and are now required for building a test file. Those basic activities include establishing and operationalizing acquisition relationships and processing (selecting, abstracting and indexing) input to the file.

A simulated clearinghouse consisting of minimal staff (during Phase II) shall require that all or most of the operational problems (i.e. building non-duplicative acquisition arrangements, physically processing materials, dealing with an advisory committee, resolving management problems, responding to NIE contract requirements, etc.) inherent in the ultimate institutionalization are dealt with. In addition, a simulated clearinghouse function during Phase II allows for the conduct of a more structured "formative evaluation" to better inform the ultimate decision regarding organizational location and administration of the Practice File. Unit costs comparable to those currently calculated for ERIC acquisitions, selection, processing (RIE and CIJE), and

questions and answers, can be easily developed during operation of the simulated clearinghouse and thus directly inform an ultimate decision based on cost data. Also, since the simulated clearinghouse shall deal with content from a variety of sources, the organizational relationships and acquisition incentives structures will be fully explored. This will allow for the collection of information and data based on policy and political considerations that can also directly inform ultimate decisions. Processing documentation via the simulated clearinghouse to a machine-readable, retrievable database will allow for the documentation of technical problems as well as procedures that will ultimately facilitate the transition from a pilot to an operational mode.

BRS considered using ERIC staff to accomplish some of the processing tasks. However, the coordination needed with a complex developmental activity such as this would be lost if selected functions were decentralized. Also, costs would be greater since communications, mail, meetings and visitations by evaluation team members would be required. In lieu of actual ERIC CH staff work on the file, BRS has budgeted for EPF staff to visit selected ERIC clearinghouses to review and consult regarding ERIC procedures and ERIC-compatibility.

In short, the simulated clearinghouse provides an organized context within which the project can: (1.) accomplish the building and maintenance of the pilot file; (2.) provide a mechanism for expanding to a field test; (3.) provides an entity for the focus of information and data collection for the "formative" portion of the evaluation; (4.) provide a manageable administrative effort

for this developmental project; and (5.) be accomplished more cost-effectively than other alternatives. The simulated clearinghouse provides an observable structure as close to the ultimate organizational requirements as is possible thus allowing ease of transition to whatever institutional setting might be deemed appropriate in the future.

B. Rationale and Explanation of Content Options

The original RFP for this project cited hypothetical parameters for Phase II. It stated that (p. 20)..."Phase II work cannot be proposed in detail until the design products from Phase I become available. However, for purposes of the proposal review, NIE requests a simulation of the proposer's approach to the work required in Phase II." Further, the RFP states (p. 21) ..."The Phase II work plan (actually developed after Phase I) will reflect all justifiable deviations from the simulated plan. Modifications in the Phase II plan will be recommended by the contractor in Product 1.8 (this document), as appropriate."

This section provides a rationale and explanation of how and why this plan deviates from the simulated Phase II plan submitted in the original proposal. The deviations are presented as a series of options each of which expands the content scope of the pilot test file, and each of which contains decision points for NIE that allow for expansion after initiation of Phase II. These "expansion points" provide avenues and means for facilitating the transition from a pilot to a fuller field test and ultimately to an institutionalized Practice File.

At the end of this Section there is a summary chart of the options proposed as well as projected time requirements for each option.

Content Option #1

Option #1 deviates the least from the original Phase II work plan. Content of the Practice File for this option includes validated projects of the National Diffusion Network and State-validated projects in the area(s) selected for content focus. A content area suggested as one to focus upon is citizenship education/consumer education (see "NOTE" at end of this section.

The volume of the file for Option #1 is consistent with the original proposal (1,000 entries). If NDN-validated and State-validated Citizenship Education practices do not total 1,000, other State-validated practices would also be sought. This option would include an expanded user test population and a delivery network including 10-15 sites made up of one or more of the following: intermediate service agencies, state education agencies, Regional Exchanges, Teacher Centers, an ERIC clearinghouse and the NIE Reference Center. The number of users reached would be far greater than the 150 originally proposed but it is the feeling of the contractor that an expanded user base shall greatly increase the reliability and validity of the evaluation data.

The most significant deviation from the original proposal is the expansion of the actual file test period from three months to six months thus making Phase II eighteen months in length. The expanded file test period is necessary in order to: (1.) allow more routinized use of the Practice File as opposed to file availability for an extremely

short "experimental period" which could skew results; (2.) extend the file test beyond the school year and into the summer months when LEA's would typically utilize such a resource for program/curriculum development for the next school year (this usage context is critical to accurate feedback regarding file utility); and (3.) facilitate a more diverse set of users and usage conditions which might be sampled in order to guide-design/delivery specification revisions; and (4.) allow for adequate data collection. In short, a three-month test period is simply viewed as an inadequate sampling period to inform the expanded effort to develop such an important educational resource base.

Content Option #2

Option #2 content deviates entirely from that originally proposed in the simulated Phase II work plan in that it includes an attempt to acquire and process locally - developed - practices in the test file. BRS feels that to adequately pilot test a Practice File, Option #2 must be excercised. Option #1 simply tests the obvious, since incentives exist to both input and use validated practices. However, for locally developed practices, few incentives exist for submission to the Practice File. A more representative test of the feasibility of developing a resource with such content is definitely needed.

With regard to the utility of locally developed practices, several authors cited in Product 1.4/1.5 clearly support that notion. In fact, locally developed practices relate more directly to the intended audience of the practice file as was indicated in the RFP (teachers and other instructional staff and principals and other administrators of education agencies). The utility of Option #2 content is significantly greater to the practitioner group then are validated practices (Option #1) whose installation is contingent upon decisions made beyond the practitioner level.

The size of the Option #2 test file is also 1,000, making the total for Options #1 and #2 2,000 entries. The actual file test period for Option #2 is also six months. It is proposed that the same subject/content area(s) selected for the SEA-validated focus be carried over to this option (e.g., citizenship education/consumer education). The number of test sites would remain in the same range (10-15). BRS wishes to emphasize that it feels strongly that Option #2 must be excercised to adequately test the notion of a National Education Practice File.

Content Option #3

Option #3 content is commercially developed practices. As reported in Product 1.4/1.5, the major portion of the educational practice in U.S. schools today is based upon commercially developed materials. Therefore, a Practice File would not be representative if commercially developed materials were not included. Because of the policy issues raised with regard to a Federal role in the dissemination of privately-produced materials, an extended period of time (six months) is required for this option. The proposed file size for this content option is also 1,000, making the total 3,000 for all three options. The number of test sites and the length of the file test period remain consistent with Options #1 and #2.

BRS feels it is critical to excercise a minimum of nine months of Option #3. This would allow the contractor time to resolve policy issues and develop potential acquisition arrangements. At the end of month nine, NIE could review documented progress and plans for the commercial materials and make a decision concerning whether the acquisition plan should be implemented with additional funds and the file tested with this content.

The importance of including commercial materials in the pilot test of the Practice File rests with the divergent set of acquisition procedures required, much the same as those that distinguish Options #1 and #2. Also, the letter (attached as Appendix E) sent to NIE by Mr. Edward Ball (a member of the PAG) clearly indicates the position

of the Association of American Publishers regarding the inclusion of commercially developed materials in the Practice File.

With cooperation and willingness as expressed by the above letter, it would seem remiss not to excercise a minimum of nine months of Option #3. The excercise of this opportunity is an action particularly suited to NIE and this project. Organized inclusion of commercially developed materials in Federally sponsored resource bases is not an issue that will disappear if ignored and will not be addressed by any other Federal agency. This option and the built-in NIE decision point (after nine months) affords an opportunity to cautiously explore the policy issues and incrementally move toward a practical resolution of the issue.

Content Option #4

Option #4 proposes a human resource file development effort. Although this option is somewhat of a departure from a practice file in the strict sense, the need for this file was frequently mentioned throughout Phase I. Evidence cited in Product 1.4/1.5 supports the notion that the availability of practice materials alone is not sufficient and that a human interface offering assistance is also required. The potential sources of this assistance far surpass that which is inferred by a single Practice File entry (the contact person). A human resource file developed as a companion to the Practice File would be a valuable, and ultimately perhaps required, resource development effort.

This option is phased in the same manner as this entire File Development project in that the initial nine month period is a design stage and the remaining 24 month period is an implementation stage. This option does entail a lengthy developmental effort but the policy and legal questions that need to be answered as well as the overall sensitivity of any effort that deals with personal information certainly will require the time allocated.

At the present time, several state and regional education agencies are developing human resource files. It is an opportune time for NIE to accomplish at least the design work so these current and future efforts have a common developmental framework and compatible data. If this were done now, it ultimately would conserve the inefficiencies inherent in attempting to develop a national system after many states and regions have already developed systems at their levels.

BRS understands the degree of departure this option represents from the basic Practice File effort. However, it is an effort that must be undertaken and if done now, could be developed so that the human resource file reflected the practices contained in the Practice File.

This option is shown in the timeline below as being initiated with the other three. To decrease the total, immediate funding required, this entire option could be moved back several months and considered as an NIE expansion point. This would also provide contract staff maximum experience with the other three options so that experience might be applied to greatest advantage for this complex design effort. The human resource file size, file test period and number of test sites are consistent with the other file content options.

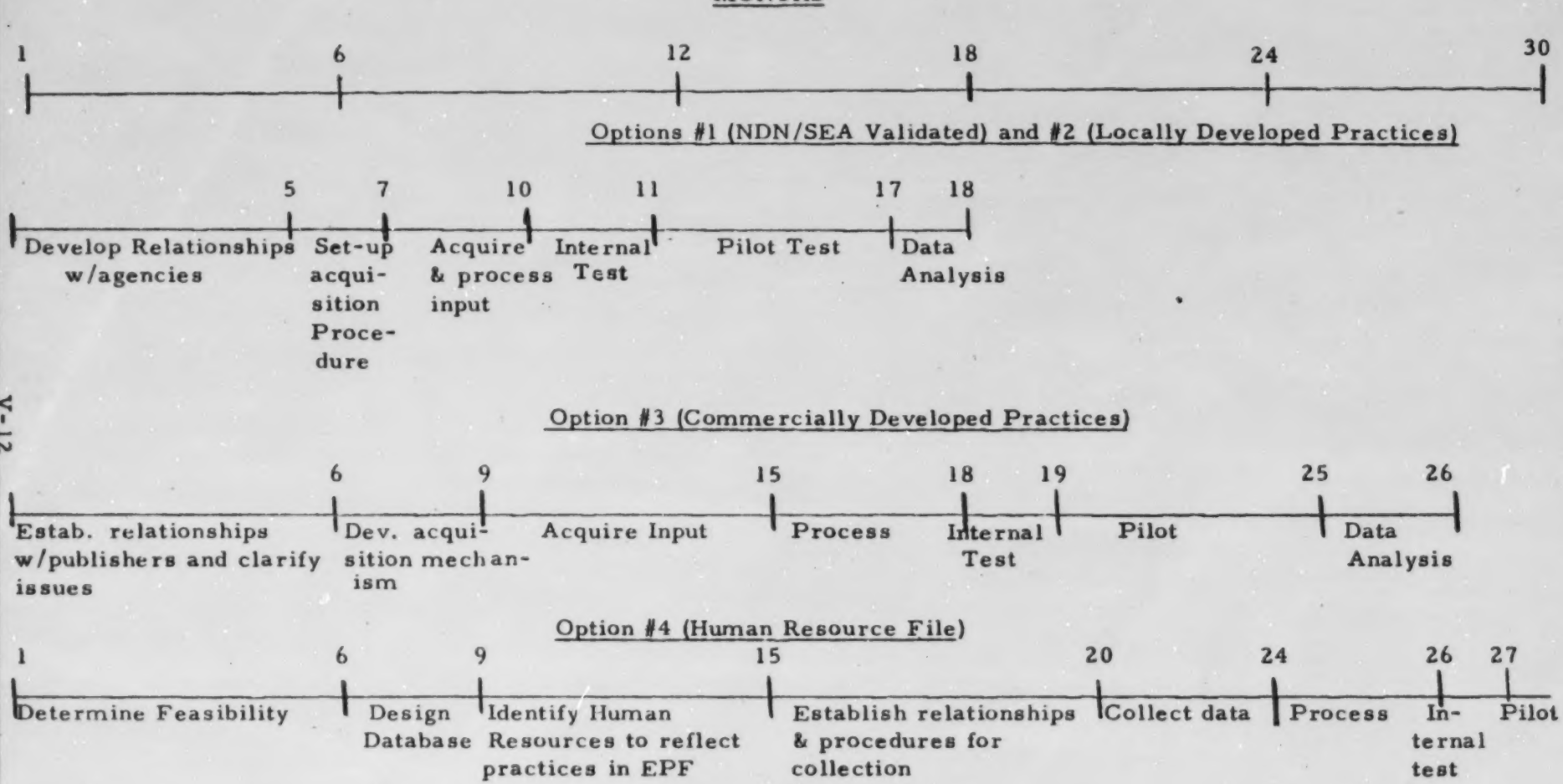
A summary chart of the four content options and time requirements for each are shown below:

PHASE II

Content Option Summary

Option	Content	File Entries	Test Sites	Test Period	Total Period
#1	NDN/SEA Validated	1,000	10-15	6 mos.	18 mos.
#2	Locally Developed	1,000	10-15	6 mos.	18 mos.
#3	Commercially Developed	1,000	10-15	6 mos.	26 mos.
#4	Human Resources	1,000	10-15	6 mos.	33 mos.
	TOTAL	4,000	10-15	6 mos.	33 mos.

Phase II Content Options and Time Requirements



V-12

Summary and Recommendations for Excercising the Content Options

Phase I activities have clarified the need to go far beyond the original simulated Phase II proposed by BRS. NDN and State-validated practices are simply insufficient with regard to both utility and a meaningful test of a practice file acquisitions and processing design. The efforts already underway in various SEA's, in regional and national organizations also make it clear that to restrict the Practice File to Option #1 is, for practical purposes, far from a leadership effort.

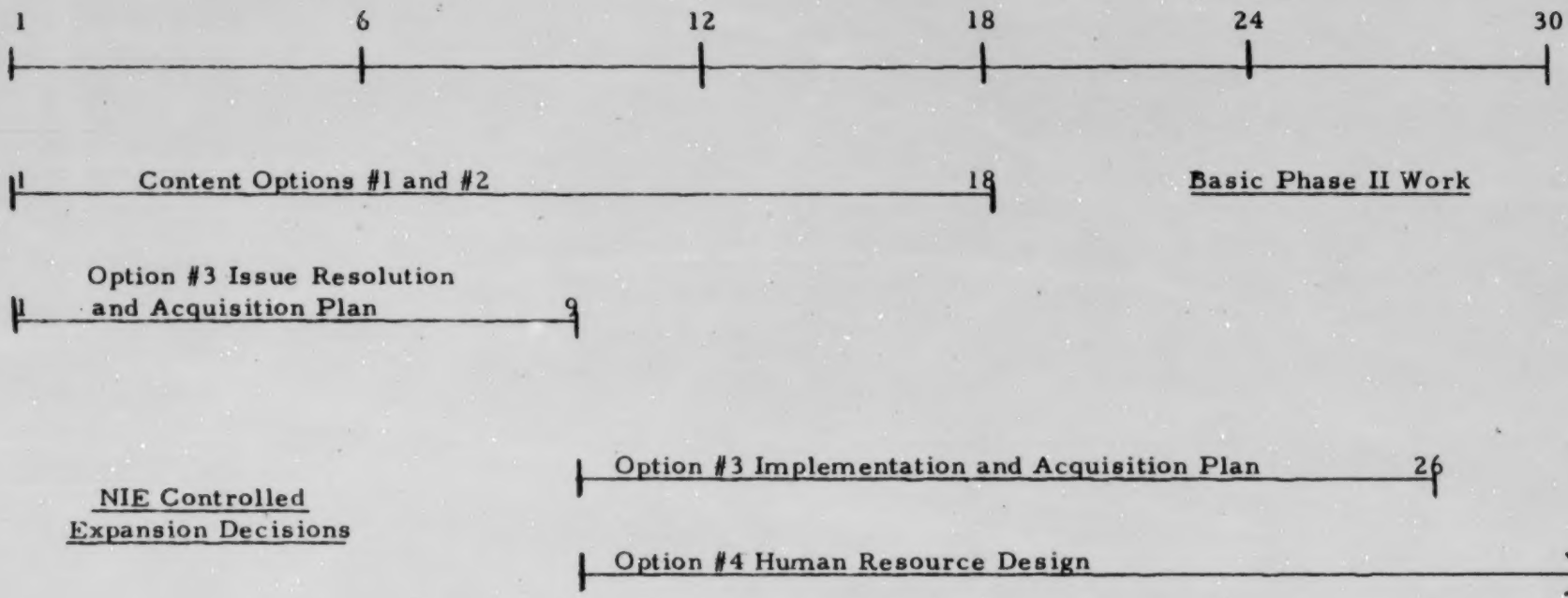
The literature cited in Product 1.4/1.5 strongly supports the need for locally developed practices (Option #2) and the reality of present school practice leaves little doubt with regard to the need for commercially developed practices (Option #3). With this in mind, BRS recommends excercising all of Options #1 and #2 and the initial nine months of Option #3 as the minimal pilot test effort. Excercising that minimum provides a pilot Practice File of 2,000 entries consisting of NDN/SEA validated practices (1,000) and locally developed practices (1,000). At the same time, it provides resolution to the issues surrounding inclusion of commercially developed materials and an acquisition plan for input of those materials.

At the end of month nine, BRS recommends that, if the Option #3 issues have been adequately resolved, and the acquisition plan for commercial materials is adequate, NIE fund implementation of the acquisition plan for Option #3. This effort with Option #3 is felt to be particularly important in view of the interest demonstrated by the Association of American Publishers.

BRS recommends that Option #4 also be considered for implementation after month 9. This allows full benefit of design and implementation experience gained with Options #1 and #2 and part of #3 to be applied to the human resource content option.

A summary timeline of these recommendations follows:

BRS Recommendation for Phase II



V-15

NOTE: The content options discussed above relate to variables other than the actual subject focus. It is intended that all NDN-validated practices would be included in the practice file. Other than that content type, however, a subject area limitation shall be required to keep the acquisitions effort and file size manageable during the pilot phase. BRS has chosen to limit the subject area focus of other content types (all or most of SEA-validated, locally developed practices and commercially developed practices) to the competency based realm of citizenship/consumer education. BRS has selected this area because: (1.) it falls within the realm of competency based education and many states (39) are developing programs to address competencies; (2.) the citizenship/consumer education area is a high interest area in todays social context; (3.) the citizenship/consumer education area requires the application of basic skills; (4.) the citizenship/consumer education competencies are especially relevant to the urban areas.

BRS has already determined that the American Bar Association in Chicago, Illinois has on hand, and is collecting educational practices related to citizenship education especially in the law-related area. In addition, BRS has contacted Dr. Dustin Wilson, Director of the Office of Consumer Education,

USOE and he and his staff have a collection of consumer education practices which can be made available for the test file. These initial contacts indicate that this subject area would not present insurmountable acquisition problems especially since other sources (i.e. SEA's, Regional Labs and intermediate agencies) can be approached in addition to the agencies already contacted.

C. Project Management

As was the case during Phase I, BRS shall rely heavily upon the Project Advisory Group (PAG) as a primary source of advice, for reactions to draft documentation, and as a cadre of professionals who might be called upon to assist with specific tasks throughout Phase II. The PAG complements the NIE Internal Advisory Committee (IAC), whose membership is representatives of various Federal agencies and whose responsibilities include reviewing project documentation and providing policy level input and advice. Regular involvement and communications to the two project advisory groups shall be continued because it is consistent with the BRS intent to maintain a participatory approach to project management. Internal project management shall be continued by Gregory Benson, the project director. Dr. Charles Mojkowski will assist the project director with the coordination and conduct of Advisory Group meetings and serve to facilitate the transformation of the outcomes of Advisory Group meetings into operational management considerations of the project. Dr. Mojkowski shall also assist with the preparation of formal project documentation.

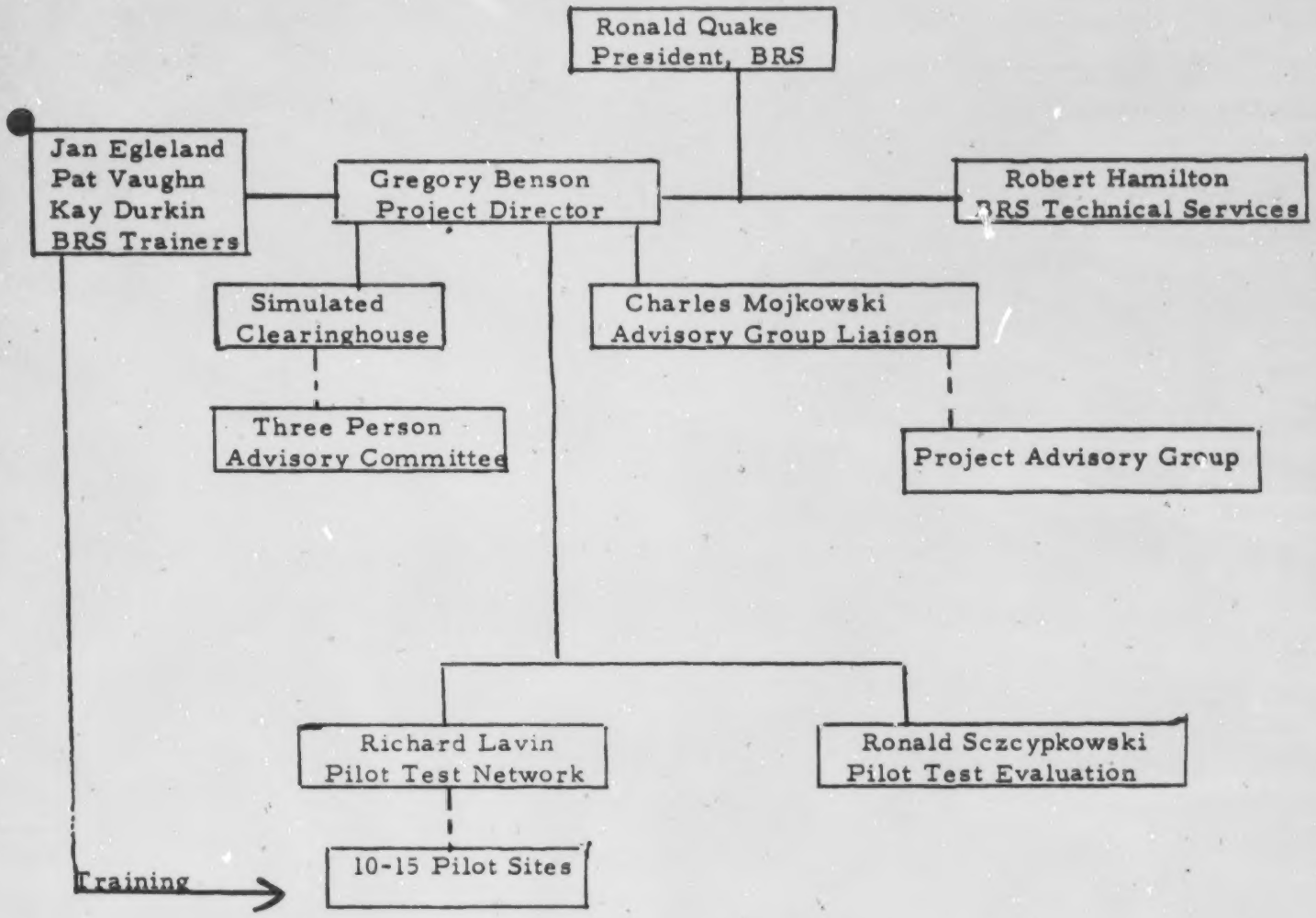
The project director shall directly oversee the operation of the simulated Practice File Clearinghouse. The simulated clearinghouse shall have a three-member advisory committee chaired by a member of the current PAG. The other two members of that

committee shall be local educators involved in the instruction of the content area(s) selected as appropriate for the pilot test file. In addition, the project director shall work directly with Dr. Richard Lavin who shall coordinate the pilot test network and with Dr. Ronald Szczypkowski (Magi Educational Services) who shall coordinate the pilot test evaluation activities. Lastly, the project director shall work closely with Mr. Ronald Quake and Robert Hamilton of BRS, to ensure that the required technical (hardware/software) capabilities are developed and in place in direct support of project activities.

This management arrangement provides a cadre of project staff members, each with a clearly defined responsibility: Benson, overall project coordination and operation of the simulated clearinghouse; Mojkowski, communications between project and advisory group; Quake/Hamilton, hardware/software requirements; Lavin, development and operation of the pilot test network; Szczypkowski, design and conduct of the pilot test evaluation. This delineation of responsibilities increases efficiency for both internal management purposes and external (NIE) monitoring functions.

Although there are some problems inherent in a decentralized staff, frequent written and phone communications augmented by meetings at a central location (Holyoke, Massachusetts) has been and will continue to be a frequent, convenient meeting place for project staff) when group interactive work sessions are required.

Phase II Project Organization



External Project Advisory Group meetings are tentatively scheduled for month eight, just prior to the NIE expansion decision points and significantly in advance of the initiation of the pilot test (about 2-3 months) in order to provide input to that major undertaking, and month seventeen to review existing evaluation data and offer policy guidance to NIE regarding an expanded effort.

Internal Project Advisory Committee members shall be contacted immediately by the evaluation team to clarify membership expectations regarding outcomes and data generated during Phase II. In addition, a meeting shall be held in month nine to consider the expansion decision points, and another at the completion of Phase II.

The three-person CH Advisory Committee shall meet two to four times. No scheduling of these meetings has been done at present.

D. Objectives/Activities

Objective #1 - Create the Pilot Test File

(Activities outlined under this objective are summaries of the implementation steps for the File Design documented in greater detail in Product 1.6 attached as Appendix C.)

Activity

1.1 Establish the simulated Practice File Clearinghouse

Clearinghouse activities will be created at BRS involving minimal staff reflecting the functions of acquisitions, abstracting and indexing. These staff shall also be responsible for online input, editing and updating of the test file as well as creation of general Practice File announcement material.

1.2 Establish acquisition relationships

The specific relationships established shall vary depending on the content options chosen. This process shall include contacting/visiting some ERIC clearinghouses and/or clearinghouses funded by OE to determine extant relationships they might have that are relevant to the Practice File. Following that, unique relationships will be developed with organizations (SEA's, Regional Exchanges, national organizations, etc.) to acquire specific content.

1.3 Create-loading and retrieval programming (Product 2.3)

BRS is currently marketing an online database loading and updating capability (PDS/11 - See Appendix C, Section F) and database retrieval package. These packages shall be modified slightly to accommodate the information fields unique to the Practice File.

1.4 Acquire input

Based upon the relationships established in activity 1.2, actual content materials shall be acquired as file input. A representative mix of acquisition sources and media format shall be sought.

1.4.2 Select materials

Using the general criteria currently used by ERIC and criteria that relate to the availability of specific information fields required for the Practice File, practices will be screened for input to the file. (See Appendix C, Section C)

1.4.3 Process (abstract and index) practices into the file (Product 2.2)

Using techniques similar to those operable in ERIC clearinghouses, practices shall be abstracted and indexed for entry into the file. (See Appendix C, Section E)

NOTE: Planning discussions have been held with the Acting Dean, School of Library and Information Sciences of the State University of New York at Albany to determine their interest in providing faculty and advanced graduate student assistance with this activity as well as creation of the controlled vocabulary. The willingness of the

University to participate in this project is documented in a letter attached as Appendix F.

1.4.4 Create controlled vocabulary (Product 2.2)

The ERIC Thesaurus shall be used as the basis of controlled vocabulary development. However, it is anticipated that new terminology shall be generated and added to the current Thesaurus. (See Appendix C, Section G)

Special Activity: Related to the development of a controlled vocabulary, an investigation shall be undertaken of the Annehurst Curriculum Classification System and the Select Ed system to determine their relevance for future direction of the Practice File. This activity shall include:

- Visiting those operational efforts
- Documentation of the efforts
- Derivation of the implications the efforts have for the Practice File
- Recommendations to NIE regarding the implications for future Practice File development

1.4.5 Create MF of print materials and explore cost-recovery copy making

An attempt shall be made to subcontract with the current EDRS contractor to generate MF of the printed practices included in the file. If this is not possible or proves to be cumbersome for this small an effort, a local vendor shall be sought for this task. A cost-recovery based document reproduction service shall be explored, especially for locally developed practices in print form.

1.4.6 Create announcement documents (Product 2.6)

General announcement material regarding the file shall be made available to all test sites. In addition, the content announcement documentation (SDI oriented) shall be made available twice during the test period. Other documentation is described under Objective #2.

1.5 Test file internally (Product 2.5)

After a substantial protion of the file has been loaded, a series of internal tests shall be run to validate the use of the controlled vocabulary, the accuracy of information field entries and the general retrieval capability. The final product of this testing period shall be the Test File (Product 2.5).

As will be noted in the timeline presented earlier, the basic activities outlined above vary with content options. For Options #1 and #2, these activities leading to a testable file take eleven months; Option #3, nineteen months because of the policy issues that must be cleared before acquiring commercial materials, and Option #4, twenty-seven months since an entire design phase must precede development of a human resource file.

Objective #2 Conduct Pilot Test

Purpose of the Pilot *Test*. This pilot test is an intensive try-out of the preliminary form of the Education Practice (EP) File to provide the basis for modifications through a systematic evaluation by a sample of potential users. The pilot test will examine feasibility of the EP file in terms of feedback from and performance of a small but representative group of users through primary access sites.

(1) To get professional/practitioner reactions to the dissemination of the EP file (programs and practices)

(2) To seek opinions and suggestions regarding usefulness of the EP file, its ease of use/accessibility, and its relative worth in terms of other available access channels

The scope of this pilot test, with computer retrieval access in a minimum of 12 primary sites, locates a set of programs/practices to be disseminated in cooperation with local school system clients. Thus, the pilot test will examine utility of the file for disseminating programs/practices. The evaluation of the EP file will test the standardized format developed by BRS for the file collection and suggest modifications to existing files of curriculum and programs in primary sites through the addition of the EP file as a resource complementary to other search activities they may already be using.

Coordination of the configuration of sites would be accomplished through support services, such as training and consultation, from the BRS staff and the Merrimack Education Center (MEC). This emphasis on coordination is intended to maximize the usefulness of the evaluative data and feedback gathered from the sites in the planning of the EP file and its operational characteristics.

The pilot test can be summed up by a series of questions:

(1) *What difference will the program/practice file make if it is added to the current primary site holdings?*

(2) *What reasonably can be expected if the EP file is expanded over the next several years and what modifications are suggested?*

(3) *What will happen at the primary sites that would not have happened in the absence of the EP file?*

(4) *What strategies used by the primary site* appears to work *best in disseminating the EP file?*

(5) *Is the new EP file adequately represented by support materials (e.g., adequacy of thesaurus, etc.)?*

(6) *What effects, if any, are determined as a result of the placement of the EP file in a primary site?*

- *increases the level of resource use*
- *alters the resource mix (file options)*
- *affects the existing search and negotiation process*
- *potential for impacting the practice level of the school*

(7) *What are the costs of this system (direct) as compared to other ERIC-like information systems?*

(8) *Is the language of the practice file easily understood by the user/practitioner?*

Expected Outcomes

For example, a center might want to get greater utilization by existing users. Or, they might want to increase the capacity of the organization to offer service and as a result improve the training component of the center. A primary center might want to be able to provide greater marketing strength through market segmentation and selective products that can go out to users. They might want to see if they could lower cost of services or at least expand services without adding cost. We might, as a result of the practice file, be able to think of user systems in a different way. Instead of thinking of it as

perhaps students, teachers, administrators, and organizations, we might come up with a new framework of viewing the market that would include such things as organizations, committees, associations, unions, and buildings looking differently at this system because you're now dealing with practice files. A primary site might be able to build a greater two-way communication between its organization and users.

Activities for the Pilot Test

2.1 Select a sample population for participation *in the field test*

2.2 Train participants in appropriate use of *the file*

2.3 Implement a pilot test of the education *practice file in the primary sites chosen*

Activity 2.1: Select a sample population for participation.

The pilot test would develop a network of primary sites that are autonomous information/service centers each of which would have delivery functions designed to facilitate access to the EP file. Each of these sites would develop a service plan/agreement, based upon planned variations of services to improve client access to the EP files in a unique way.

All participating primary sites and their affiliated users would be coordinated through the use of identical procedures with regard to support from the project staff. The autonomous sites would receive support from the project through written service agreements that would include access to the EPF, commumications and offline printing. Each participating site commits a portion of in-kind, local resources to the overall operations of the field test. In return for access to the EPF and ERIC (commercial value estimated at $3,000-$6,000), the local site would commit

itself to make specific services available to its clients (or new referred users from the pilot test staff). The primary site then collects and transmits data about its activities to the pilot test staff. This arrangement permits the utilization of a variety of existing agencies, thus adapting the EP file to current community/state resources. The following table illustrates the types of sites/centers to be considered for this pilot test and an example of each.

Site Categories

	REPRESENTS	TYPE
2 Rx's	5 Multistate Regional Exchanges	GENERAL
2 SEAs	23 State Capacity Building Projects (SEA-based with resource and linkage components)	
2 ISA (RESA)	Substate information and service centers; county and intermediate agencies	
1 ERIC Clearinghouse 1 Information Broker	17 ERIC Clearinghouses State-based regional information material services (housed at EIC, Prise, etc.)	Individual Agency
0 *	American Association of Colleges Professional Associations CSSO	Homogeneous
1 NEA 1 AASA	NEA, AFT AASA etc.	Clusters within/ across agencies
2 Teacher Centers	Colleges and Universities LEA - Urban	Hetero-geneous

*These agencies will be kept informed of the pilot test developments.

Sites will be selected to represent different geographic characteristics and a variety of users. Consideration will be given to sites that can show evidence of:

- Educational information services offered to practitioners
- ERIC system, on-line searching of ERIC/NIMIS, etc.
- Some evidence of information management and dissemination capabilities

Target markets are broadly defined and decision makers will be identified through log data kept at the primary sites. The program and practice file (EP file) will be addressed to broad market groups including the following:

- LEA support personnel and practitioners
- Regional support personnel (substate regions)
- SEA support personnel
- Members of State/Federal projects such as bilingual, Title I, and Title IV-C
- Professional association members (ASCD, NCTE, IRA, etc.)
- Teacher Center personnel

A sampling of sites for this pilot test will be contacted from those already expressing interest in the project; these individuals will be contacted by letter and asked to use and evaluate the operational program file located at the primary site. Additional sites will be contacted in order to provide geographic and organizational representativeness. In the first stage of the process, the selection process, the following steps will be utilized:

NOTE: BRS considered including a list of all agencies that have already expressed an interest thus far, but decided against it so as not to bias readers based in the unsolicited offerings for participation which vary considerably in detail and scope. The decision to wait will thus allow decisions based on the uniform request for the information shown above.

Selection Process

- Letters received
- Follow-up letters to those organizations that represent target audience mix
  - --request additional information
  - --screen
  - --telephone interview
- Confirming letter to sites selected
- Preliminary questionnaire completed by sites

Preliminary Questionnaire. At each primary site a pilot test information manager is identified who completes a history questionnaire for that agency. This person responds to the questionnaire and a telephone interview by the pilot test coordinator responding to questions contained in an interview outline. The preliminary questionnaire should identify the types of programs, services, and resources offered at the primary site and the capability of the organization/agency to deliver the practice file.

Each subject site completes a form by mail, identifying site capabilities, present programs and services, current role in working with LEAs, current knowledge of dissemination programs need for products and knowledge about practices/programs.

PRELIMINARY QUESTIONNAIRE

1. Describe the current operations of your agency.
   - Facilities
   - Personnel
   - Current Programs
   - Resource Information Bank
   - Funding Levels--Sources
2. Linkage between resources and clients.
   - Linkage to Resources
   - Linkage to Clients
   - Internal Linkage within the Organization
3. What problem-solving strategy might be in place (are they using)?
   - Models
   - Style
   - Organization (private/public, what is their governmental relationship, do they use field agents)
4. What equipment is available at the primary site (hardware) and what training have staff received previously?

These four areas should give us some estimation of the degree of capacity with which sites would operate. At the initial stages of identifying the pilot sites, we could ask these people to submit to us a brief capability statement, three or four pages in length, that includes these items. This would give us some background on their sites and staff. We would also request some demographic information relative to their location, addresses, telephone numbers, clients served, etc.

Market Targets Identified.

- *Number and kinds of potential clients*
- *Number and kinds of predicted clients*
- *Types of users (to be maintained in log data)*
- *Broad client categories that may differentiate the market*

Consideration was given to a number of sites as secondary centers and providing them with a password. This was ruled out because it was felt that they would dilute the evaluation. They will be put in contact with a primary site from their respective area if they want to access the file. Consideration could be given to these centers as potential sites for access at a later date.

Service Agreements Developed. Primary sites will be asked to describe how they use the EP file and to indicate various reactions to it. The only restriction placed on the use of the file is that each site will be limited to a six-month use, (approximately 10 hours per month) and agree to provide feedback data on use of the file. Site strategies for this operational field test will be written into the service agreements. The service agreement can be thought of as a marketing plan. Suggested items to go into the service agreement form to be mailed out prior to the two-day training workshop include:

- *Users to be serviced (estimated)*
- *Marketing strategies proposed*
- *Means and procedures for contacting clients*
- *How client/user accesses the file*

- *Agreement to log data and submit evaluation forms*
- *Consultants and resource people available at the primary sites (in-kind resources)*

Cooperatively with the pilot test staff through a planning session at the two-day conference, each primary site will determine strategies for local dissemination and identify the strategies to go into their service agreements.

(1) Any special packaging considerations locally

(2) Any special service considerations

(3) Any special training considerations for primary site staff

(4) Any special promotion considerations

(5) Any special distribution considerations (outreach/publicity) and source documentation

(6) Access options for those primary sites that do not have necessary in-house technical skills for computer retrieval

The information manager for the primary site submits the contract by the end of the two-day training session and it is refined with pilot test staff. Upon receipt of a completed service agreement, passwords are issued. Beginning with the initial release of the password codes assigned to the primary sites, the information managers implement their unique considerations for the "marketing plans" locally.

Activity 2.2: Training Activities

The BRS project staff provide access to content information about the file through training experiences and will provide demonstrations as necessary for training. Activities will take place at a conference center (e.g., Chicago) and at primary center sites. Inservice training experiences are offered through a monitoring of service agreements that are established with primary sites by telephone or through on-site visitations. Project staff will interact with appropriate test site staff for orientation. Subsequent contacts will be made by phone or in person by visits from test site personnel or evaluators.

Product Support Materials. The pilot network coordinator will consult with project staff on the kinds of promotion, advertising, and awareness to be developed. Products to implement this technical assistance component will also be made available.

- *Brochure, "How to use the Education Practice File"*
- *Descriptive fliers*
- Training packets
- User products (SDI)
- Other implementation aids as necessary (e.g., standardized search form)

Training packet development and other activities to support the conference and in-field activities will be the mutual responsibility of BRS and the pilot network coordinator. These items include responses to requests for planning information, preparing briefings and conference presentations, and preparation of brochures and other literature for outreach.

Training packets contain:

- *General information on project*
- *Rationale for project and commitments/ responsibilities*
- *Expectations, functions, and activities*
- *Specific instructions on logging data and on use of search request forms and submitting evaluation data*

Field test staff will assist BRS in developing specific information packages and providing training for participants in the test file. These support services are made available to the sites to assist them in dissemination. Two days of training will be built around the role expectations and functions as outlined on the following page:

ROLE EXPECTATIONS AND FUNCTIONS OF PRIMARY SITES

Expectations:

Increase public awareness of the existence of educational practice file and source documents

- provide publicity, awareness, broadcast dissemination, spread of information

Increase the access to and the utilization of the EP file for existing and potential users (clients)

Provide reports and maintain logs, records, and information related to activities and utilization of the file at the primary site

Provide reports about needs that will enable project staff to make useful modifications relative to potential file expansion (e.g., recommendations on file content and process)

Functions:

Maintain on-line access to EP file (resources)

- sustain agency/client relationship and cooperation

Information-giving (proactive) providing information about program

- provide accurate, up-to-date information about the education file project

Provide referrals to agencies for those inquirers who need them

- location of source document
- identification of resource for inservice training
- "direction" or "steering" to agencies

The citations/references stored in the education practice file should be identified as to their location. Referral will be provided by the information managers at the primary sites to answer inquiries and provide further information sources

Provide follow-up services to those inquirers who receive information from the practice file

- feedback and evaluation
- was referral appropriate

Outreach

- active effort to identify new clients and organizations/associations
  - to stimulate the use of existing programs by persons not currently using them
  - to build channels for new acquisitions for EP file
  - to implement survey research for market planning

Activity 2.3: To implement a pilot test of the education practice file through consultation and technical assistance.

Programmatic Technical Assistance. On-site visits by project staff provide consultation to the primary site for the purposes of examining critical incidents, collecting case study data, and identifying concerns or constraints through problem analysis. Consultation at each site through applications of the file allows for reviewing data collection procedures, and identifying factors which aid or constrain implementation of the file.

Benefits. Agencies testing the products enjoy certain benefits and bear some responsibility to the project. The following benefits are derived from participation in the project:

- *Utility of products*
- *Having staff oriented to the use of products*
- *Exposure to resource personnel from project agencies (BRS, NEC, consultants, etc.)*
- *Technical assistance to complement their in-house capability*

Project Support Services to Sites. Primary sites receive the following:

- *Two days' training workshop for the information manager*
- *Copies of newsletters updating the listing of relevant file features through bi-monthly newsbriefs*
- *Information highlighting network development through the field test*
- *Print catalogs of sample abstracts, descriptor terms, and other support documents to be used as implementation and training aids*
- *Other user services as necessary so that queries can be answered with products, bulletins, newsletters or brochures*
- *Talent pool of information managers and practitioners as well as successful practices, research, and training programs*

- *Personalized, on-site technical assistance from project staff (on-site visit)*
- Toll free number for contacting the network coordinator
- *Password access to file*

Support will be basically provided over a eleven-month period in two phases: Phase I -- 5 months; Phase II -- 6 months (see time line).

It is anticipated that new response modes will be developed over the next twelve months. These may include ready reference, annotated bibliographies, resource packets or prepackaged general awareness packets, as well as SDI publications.

Offering Computerized Retrieval of EP File

Materials in the EP file, as well as computer access for retrieving, will be made available early on in the pilot-test to the primary sites for purposes of dissemination.

The primary sites will cooperate with the BRS staff to invite users (teachers, superintendents, principals, and other instructional staff--practitioners) to utilize the products of the project and to offer feedback. User request forms will be developed for negotiating search requests.

Procedures for Offering Computer Search Retrieval

Educational practitioners will be able to request searches from the education practice file by contacting a primary site and negotiating a computer search by submitting a request to the information manager at the primary site. A special search form will be used. The results of the computer search will be a printout which contains the citation(s) of all items in the education practice file that satisfy the search requirements. Additionally, the user will receive relevant citations from the ERIC (ED/EJ) files.

Sequence of Steps

Request for Search

Requests for searches are made on a standardized user request form or by calling the primary site

Search Performed

The search is run through the EP data base

On-line Printout

This printout from the terminal serves as a permanent record of the search strategy, length of time to perform the search, items located, and computer time used. This record is maintained as part of the log at the primary site

Computer Printout Off-line

The off-line printout contains the full citation(s) that will be sent to the participant requesting the search

Primary Center File/Log

The file will consist of a front section which is a monthly log of searches and a separate log of where the computer search is mailed

The file will be a monthly log of searches kept for the primary site. Data to be recorded will include participant's name, search topic, date of search, file(s) searched, number of citations/items retrieved, cross reference to agency

Each search is assigned a reference number in chronological order within the subfile for searches of the EP file

Participant User

The participant will receive the computer printout through the mail with an evaluation form for feedback. The turn-around time from submitting a request to receiving the printout will be a maximum of seven to eight working days

Based on the self-described search profile, information is tailored to a given needs set (e.g., those individuals in need of instructional practices). This represents valuable needs data that can be stored and processed for recommendations for file expansion.

The BRS and pilot test staff will provide necessary requirements to install, service, and monitor the use of the education practice file and products. MEC is prepared to assist in the installation, operation, service of the education practice file, and the pilot test staff will serve as liaison where appropriate in translating site requirements or interpreting any technical difficulties that might arise. Assistance with the installation and maintenance throughout the pilot test will include an 800 telephone line (WATS).

The pilot test staff will consult with primary sites on how the EP file is used, by whom, and with what effectiveness. The primary sites will receive specific instructions to evaluate use of the product, complete with logs and questionnaires, from Ron Szczypkowski. The pilot network coordinator will work with the primary sites to determine how easily the schools can learn about, obtain, and use the practice file, and the availability of different aspects of the file, the source documents and training requirements. Assistance from the pilot coordinator will be provided to the project evaluator with data collection from each primary site and in gathering basic information about clients/users.

Implications of the Pilot Test

The operational pilot test should serve to identify all major trianing requirements for installation of the EP file. This is consistent with Hood's statement: "A delivery system for the output of educational R&D cannot avoid a concern with providing services to schools but should avoid those that perpetuate a dependence for continued service." Referral procedures will be established to assist clients in locating sites that can provide maintenance of this inservice assistance.

The pilot test can provide estimates of the quantity of service needed from the developer to support satisfactory levels of impact.

Particular market features can also be assessed during the pilot test. These include demand analysis, potential amount of demand, and other market factors that can be determined through observation or evaluation surveys.

Each site will have unique organizational and delivery mechanisms indigenous to its specific structure and governance. Therefore, each site should be examined through a case study approach to draw interferences for necessary networking configurations in the ultimate educational practice file.

Comparisons across diverse sites, using different implementation strategies, will provide study and application considerations. As the pilot test is implemented and evaluated it will be critical that this examination address a number of related dissemination questions. Some of these considerations that relate to continuing and sustaining the education practice file include:

Other Considerations for the Pilot Test

- *Examining various techniques for contacting and motivating potential program file users*
- *Effective liaisons with secondary and affiliated sites or other intermediate agencies and professional associations*
- *Assisting the primary sites in carrying the message to school consumers and practitioners (ASCD, NCTE, etc.)*
- *Assisting primary sites in defining target users and employing directed strategies for contacting them*

Objective #3 Evaluate System Development, Implementation Process, and Output of the Practice File

Rationale for Evaluation

As described in the RFP, the National Educational Practice File Project is characterized by both process and outcome objectives ultimately aimed at developing and refining an improved educational information system which will (1.) facilitate maximum use by educational practitioners; (2.) improve the organizational ability of educational information systems, and (3.) improve the identification and dissemination of sound educational practices among various groups of users. To accomplish these ends, communication, agreements, interrelationships, new skills and understandings, and behavioral changes must be accomplished within a network of individuals representing different organizations and agencies and characterized by varying roles and responsibilities.

The achievement of a demonstration project's objectives which seek to initiate and institutionalize comprehensive changes requires systematic monitoring and feedback procedures. The rationale upon which the evaluation procedures in this proposal are based is that evaluation is an integral part of a project's development, provides objective data as a means for ongoing decision-making, and ensures the linkage and documentation of project processes and outcomes.

Michael Scriven and Malcolm Provus are among the many educational researchers who have written extensively on the intimate relationship between evaluation, research, program design, and program development.[1] This view of evaluation holds that an analysis of the process aspects of a program in light of their relationship to specified outcomes is integral, both for meaningful assessment and ongoing decision-making. Quality control of a project requires the establishment of procedures to monitor and modify processes to ensure outcomes that meet acceptable standards.

The task of evaluators of a developing program is thus twofold: (1.) to provide objective documentation and analysis of that development; (2.) to collaborate with the developers so that evaluative data are used within a framework of facilitative decision-making. Information must be generated which can be used to make judgements about a project while it is in its dynamic stages of growth. This requires an evaluation model that ensures comprehensive and systematic data classification and comparisons, and which will yield accurate and reliable data as the basis for ongoing decisions.

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[1] Michael Scriven, "The Concept of Evaluation" in Evaluation: Analysis and Responsibility by Apple et. al., Berkeley, California: McCutchan Publishing Corporation, 1974. Malcolm Provus, Discrepancy Evaluation, Berkeley, California: McCutchan Publishing Corporation, 1974.

The overall evaluation of the National Education Practice File encompasses two distinct types of evaluation strategies: (1.) formative project monitoring, and (2.) summative assessment measures. As applied to developing programs, these two evaluation approaches may be briefly defined as follows:

Formative evaluation is concerned with monitoring and improving a developing program while it is being carried out. This type of evaluation attempts to assess the early stages of a project. Specifically, formative evaluation strategies allow key decision makers to take corrective action to arrest malfunctioning in the formative stages of developing and "debugging" an innovative practice or program. Hence, the evaluation at this stage of development is designed to determine in process how well each element in the system is working (i.e. is each critical part (element) carrying its own weight?). As is discussed in detail in the following sections of this proposal, the Discrepancy Model advocated by Stake and Provus will be utilized to identify discrepancies between intentions and actual results obtained from objective assessment measures.[1, 2]

In contrast to formative evaluation, summative evaluation procedures focus on the developed program. Here, final outcomes are compared to baseline data regarding the conditions which are antecedent to the project's existence. This type of evaluation helps answer the question: "Did the developed program make a difference?"

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[1] Provus, Malcolm, Discrepancy Evaluation Model, Pittsburgh Public School, Pittsburgh, PA., 1969.

[2] Robert Stake, "The Countenance of Educational Evaluation", Teachers College Record, 68': 1967.

The summative evaluation design expected to be utilized in the project as outlined in the next section, will incorporate rigorous data collection and analytical techniques focusing on the outcomes of the National Educational Practice File in systemic, as well as user/practitioners terms. Throughout this stage of project evaluation, the principle of convergent validity will be employed to provide greater precision in the measurement and analysis of program effects especially as they relate to user outcomes. That is, data collected by one procedure may not be sufficiently reliable or valid by itself to offer convincing proof that the data is indeed an accurate reflection of a phenomenon. Therefore, an attempt will be made to provide additional data collected by another objective procedure to corroborate promising, but somewhat weak evidence acquired in accordance with evaluation design procedures outlined in this proposal.

Before elaborating the formative and summative evaluation strategies to be employed in Phase II of the project, a few brief remarks should be addressed to the issue of evaluation responsibility.

As stated in the RFP, the Educational Practice File emerging from Phase II of the File Development Project is intended to provide a model for the identification and dissemination of sound educational practices among practitioners. Should this file be demonstrated to be effective, it will most likely serve as a prototype for the ultimate development of a

comprehensive national educational practice information system. It is of critical importance, therefore, that the evaluation of this project be of high quality and include not only summative assessment of the achievement of project objectives, but also reliable and ongoing "debugging" procedures.

Under these circumstances, it appears most beneficial to place the responsibility for project evaluation in the hands of specialists who, not bearing responsibility for actual program development, will be able to conduct the evaluation in an unencumbered and objective fashion, and contribute "outside" explicit advice on correcting malfunctioning.

Consultants from Magi Education Services of Port Chester, New York have been selected to perform this role. This decision to ask independent consultants to conduct the evaluation was carefully arrived at for the following reasons:

1. The scope of the File Development Project, which includes multiple components and file feature options will require extensive feedback on how well each of these components and features are developing. An independent evaluator can gather the critical information, in an objective and appropriate manner, which the project director and NIE require in order to make timely decisions to correct malfunctioning in any of the file system features.

2. The consultants selected have an outstanding reputation as well as national experience evaluating diverse educational programs which will undoubtedly be very helpful in the planning, development and implementation of this model program. Most noteworthy is the fact that Dr. Szczypkowski, President of Magi is a specialist in dissemination of educational practice and information and has developed a number of models with relevance to the File Development Project.

3. The proposed evaluation consultants have the capability of developing the instruments and measuring devices necessary to evaluate the many unique and complex aspects of the Educational Practice File.

4. Most important of all, the consultants, by virtue of extensive experience in the evaluation of educational programs, have a proven capacity to integrate evaluation information with ongoing decision-making in a practical and very clear manner.

GENERAL EVALUATION DESIGN

Theoretical Framework

The theoretical framework for classifying evaluative data associated with the progress of the National Education Practice File Project is a Discrepancy Model. This model is an adaptation of elements central to the research of Stake and Provus[3] and provides for systematic and extensive description and analysis of the disparate elements of a project over time.

As can be seen on the following page, the Discrepancy Model consists of a series of separate stages which may be briefly described as follows:

The Antecedent Conditions Stage provides for the documentation of baseline conditions and procedures associated with the system which a project purports to change or replace - in this case, the ability of pilot-site information managers to identify educational practices and facilitate their use with educational practitioners. Data is obtained through questionnaires, interview schedules, and observations when appropriate. Then a systematic examination of the tangible evidence of the system - in this case, the pre-existing educational information system is described and documented.

The Design Stage focuses upon the planning specifications for a project with respect to major goals and strategies. The perceptions of major project participants regarding the significance of projected outcomes and

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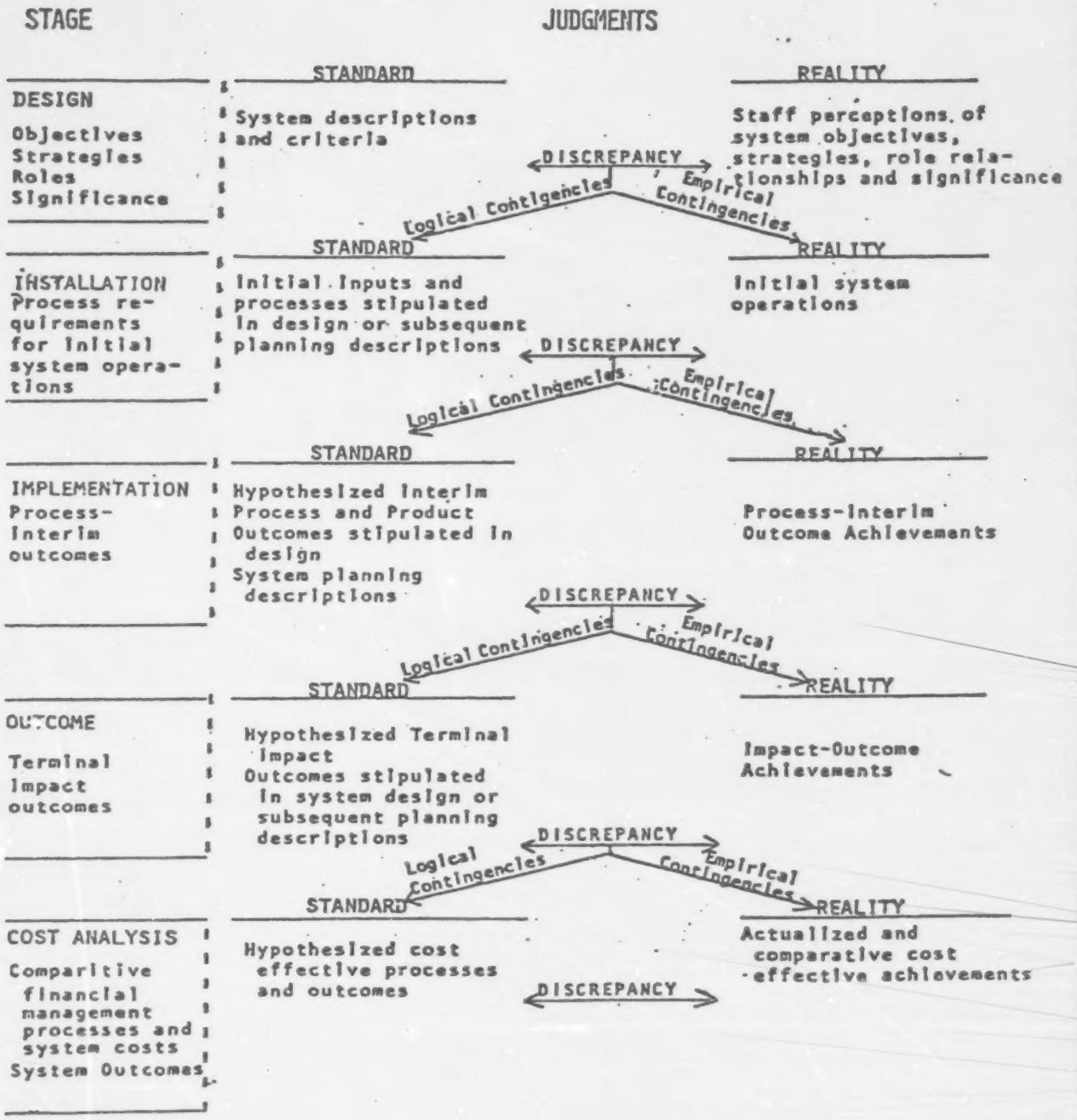
[3] Stake, op. cit.; Provus, op. cit.

DISCREPANCY MODEL

ANTECEDENT CONDITIONS

Baseline Data Prior To System Implementation



strategies are determined. The STANDARD, which consists of Proposal Descriptions, is compared to the REALITY of actual perceptions of project purposes, strategies, and significance. Comparative data are obtained through interviews with all project principals. Discrepancies between the intents stated in the project's proposal and sampled responses to the intents of the project are identified. Also identified are response patterns that may have contingent effects upon the progress of the project.

The Installation Stage focuses primarily upon process requirements necessary to initiate project operations at all levels. INSTALLATION STANDARDS, or inputs and processes stipulated in the project proposal or subsequent staff planning descriptions, are compared to the REALITY of initial program operations. Monitoring of the project's pacing and procedural adequacies are accomplished through interview, observation, and questionnaire procedures. Data analysis focuses upon discrepancies between STANDARD and REALITY, as well as the effects that discrepancies have upon subsequent processes.

The Implementation Stage compares the STANDARD of hypothesized process and product outcomes to the REALITY of those process and interim outcome objectives which are actually achieved. Formative evaluation includes the use of questionnaires, interviews, observations and various statistical procedures. Data analysis focuses upon discrepancies between the STANDARD AND REALITY, what continent effects the discrepancies have upon subsequent process objectives and the terminal outcomes, emergent needs and objectives, and possible alternatives.

The Outcome Stage compares the STANDARD of hypothesized Terminal Outcomes to the REALITY of actual outcome achievement. Questionnaire, interview and observational procedures, as well as various statistical methods are used to determine the relationships between Intended Outcomes and Achieved Outcomes. Discrepancies are analyzed, and judgements are made about future needs and objectives.

Cost Analysis compares the STANDARD of hypothesized cost-effective processes and outcomes to the REALITY of actualized cost-effective processes and outcomes. Comparisons are made between antecedent financial management processes and costs, and financial management processes and costs which are directly associated with the institutionalization of the project.

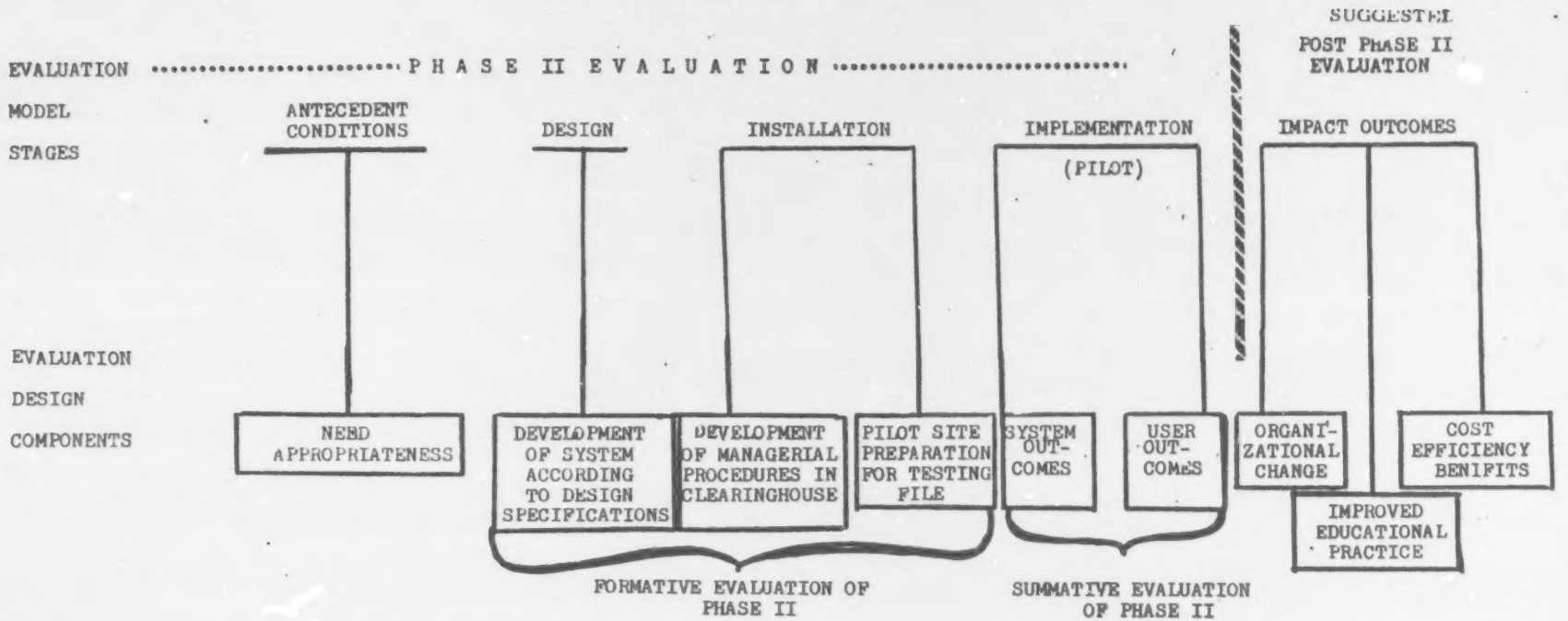
This model thus provides a comprehensive and systematic framework for collecting, classifying and analyzing evaluative data throughout the entire span of a project's development and implementation (i.e. from pre-development conditions to ultimate impact outcomes).

Organization of Evaluation Design

In order to be successfully applied to any specific program or project, each stage of the Discrepancy Model must be clearly linked to a given set of desired goals or outcomes, which are regarded as specific evaluation design components. Together, these components form an organizational whole from which evaluation activities flow and take on meaning.

Figure 2 on the following page presents the organization of the evaluation design which will be applied to the National Educational Practice File Development Project. Before turning to the design itself, however, it is most important to stress that, at the time of this writing, the Phase II version of the educational practice file which will be developed has not yet been determined. Thus, all relevant measures to be incorporated in the project's evaluation design are unable to be precisely specified at present. Clearly, a key evaluation task during the first two months of Phase II will be to determine, by means of structured interviews with all relevant individuals and groups, including the NIE Internal Advisory Committee, the specific issues and variables to be included in the final evaluation design. In the evaluation of any large-scale, change-oriented program such as the Practice File Development Project there are always many more issues than can reasonably be addressed. In selecting those to be addressed within this project, the evaluators will be guided by the continuous input of the project staff, the NIE Internal Advisory Committee, and the Project Advisory Group.

ORGANIZATION OF EVALUATION DESIGN



What follows in this section of the proposal, then, is a preliminary evaluation design based on the RFP, the products produced to date by the contractor, and the most recent reaction to those products from the advisory committees. As presented in the chart entitled "Organization of Evaluation Design", this design may be briefly described as follows:

The Antecedent Conditions relevant to the project will be assessed primarily in terms of the degree to which appropriate needs for such an educational practice information file are indicated. Clearly, much of this information is already available through such sources as The Educational Information Market Study,[4] the RFP for the Practice File Development Project, as well as existing research studies on user needs related to ERIC and related information systems and Products 1.1 and 1.2 of this project. Each of these will be combed in detail, and the data yielded will be supplemented as necessary through questionnaires and interviews with relevant parties. While the data regarding need appropriateness are collected at the outset of the evaluation effort, their significance lies in the comparisons they allow between pre-and post-file conditions. Thus, this design component is actually incorporated much later in the total evaluation scheme.

The key goal of the project's Design stage is the construction of a prototype Practice File according to design specifications resulting from the products which have been produced during Phase I (particularly Product 1.4, 1.5 and 1.6).

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[4] Paul D. Hood and Laird Blackwell, The Educational Information Market Study, Vol. I., (San Francisco, California: Far West Laboratory, October, 1976).

Consensus among relevant parties of file requirements will be finalized during the early months of Phase II. Thus, the evaluation effort at this stage focuses on the formative monitoring of the file features as they are developed.

In the Installation stage, two major outcomes are involved, both of which are basic prerequisites for eventual implementation of the educational practice file: (1.) the development of effective procedures within the file clearinghouse creating and managing the educational practice file, and (2.) the preparation of the pilot sites and other file system components for testing. Included in this latter outcome are physical pilot site preparation (facilities and equipment), training of relevant personnel, and preparation and/or recruitment of file users through general publicity and orientation programs. Each of these design components requires ongoing monitoring and together form the content of the evaluation effort during this stage.

The Implementation stage of the File Development Project comprises the actual testing of the file at selected pilot sites. The goals of this pilot test are the achievement of positive outcomes regarding both the file system itself (e.g. technical feasibility, all relevant file features of construction costs, amount of effort, turn-around time, accuracy, reliability, timeliness, accessibility, etc.), and in terms of maximum user utility (e.g. frequency of use, satisfaction, relevancy, etc.). Thus, the evaluation at this stage focuses on the assessment of these outcomes. Comparisons are then made between these data and those concerning antecedent conditions, in order to determine the pilot test effects.

The remaining stages of the Discrepancy Model which are suggested as Post Phase II activities, are grouped into a general Impact/Outcome stage. The outcomes of this stage of the File Development Project are viewed in fairly broad terms, focusing on positive changes within the present system of educational information dissemination (e.g. creation of additional linkages between pilot site organization and other relevant producer and user agencies); the institutionalization of improved educational practices; and a series of cost efficiency benefits. Following extended implementation of the Education Practice File, each of these outcomes can be measured again in both systemic and user/practitioner teams.

This overall evaluation design is intended to be applied along the continuum of project development. Specifically, the first four stages of the evaluation model - Antecedent Condition, Design, Installation, and Implementation - will be applied during Phase II of the File Development Project. The outcomes within the first three of these are the content of the formative evaluation of Phase II, while those pertaining to the Implementation stage are the summative evaluation focus. The following portion of this proposal describes both of these evaluation approaches in specific terms.

The Impact Outcomes suggested as a post-Phase II evaluation stage are not specifically discussed in the proposal. They are, however, integrally related to the File Development Projects' Phase II activities, and should be borne in mind as long-range project goals which will eventually require systematic assessment.

PHASE II EVALUATION PLAN

As outlined in the preceding section, the evaluation of Phase II of the National Educational Practice File Development Project incorporates both formative and summative approaches. Here, both of these are specifically described in terms of the key project variables to be measured as well as the methods of assessment to be employed for each.

Formative Project Monitoring

Phase II of the Educational Practice File Development Project focuses on the development and pilot testing of the file. The evaluation of this effort requires comprehensive and systematic procedures which provide for extensive process documentation, objective and relevant analysis, timely feedback, and facilitative collaboration among all parties involved in Phase II functions.

During Phase I of the project, the contractor developed a number of products as preparation for work to be completed during Phase II. Product 1.6, the file design, synthesizes previous products and expands upon the design to be implemented during this phase. This product includes the description and preliminary specifications and procedures for the Educational Practice File.

The evaluation staff shall monitor the implementation of all critical aspects of the Educational Practice File Design throughout Phase II. This will be accomplished through ongoing observations, systematic interviews and questionnaires, as well as regular visits to the central file clearinghouse and

the pilot sites to review project records and documents (Project Log). The evaluation focus in this stage will primarily involve assessing the project's progress toward the achievement of intended outcomes, and "debugging" the system of whatever problems arise in this effort.

Formative project monitoring will occur within both the Design and Installation stages of the overall evaluation model. It will be organized around two distinct tasks. First, using the three evaluation design components identified within the Design and Installation stages, specific indicators of each will be empirically assessed. These indicators are defined in the following chart:

A (DESIGN STAGE OUTCOME) EPF System Development and Implementation	B (INSTALLATION STAGE OUTCOMES) Development of Effective Managerial Procedures	C (INSTALLATION STAGE OUTCOMES) Pilot Site Preparation Including Training of Pilot Site and Central Clearinghouse Personnel and User Preparation
1. Level of Effort	1. Existence of Managerial Plan	1. Availability of Minimum Facilities and Equipment
2. Pace of Effort	2. Participation and understanding of EPF Project by relevant parties	2. Scope of Training
3. Documentation	3. Performance Standards	3. Intensity of Training
4. Scope of Application		4. Effectiveness of Training
5. Legality		5. User preparation through general publicity and orientation programs
6. Reliability		
7. Audit Trails		
8. Transferability		

Assessment measures for the various factors associated with these indicators are shown on the following pages. Monitoring data shall be reported to the Project Director in monthly monitoring briefs and Quarterly Monitoring Reports.

SECTION H

SEARCH & RETRIEVAL

The EPF search and retrieval specifications do not go beyond current BRS capabilities. To clarify those capabilities, a description of the BRS search system follows:

BRS SEARCHING SYSTEM

The BRS Searching System is a powerful online retrieval system which permits searchers to look directly in the text protions of a document for any words, numbers, or phrases. It permits the user to specify the exact positional relationship of one term to another through the use of special operators. This complete free text browsing capability greatly enhances the retrieval from databases which have been indexed with limited subject vocabularies and permits many more direct access points within a document.

In addition to the free text searching capability, the BRS system has the following important searching features:

..All standard Boolean operators (AND, OR, NOT) may be used in any combination in a single statement.

..The special ADJ operator may be used to specify that 2 terms appear immediately adjacent to one another in a document.

..Search terms may be restricted to certain "fields" within a document--i.e., the title, abstract, etc.

..Entry terms may be truncated at any point from the right to retrieve variant word endings.

..Online displays may be requested all all word forms generated by a truncation.

..Search statement numbers (set numbers) for previous entries may be used in later entries and may be combined with other statement numbers or with search words.

..Search profiles may be stored and run either later in the same day or on a future day.

..Search profiles may be entered online but requested for offline searching at the BRS center.

..Multiple instructions may be made to the system in a single statement, bypassing normal system dialog.

..Online explanations of system features are available to users upon request.

..Search output may be sorted alphabetically by author, journal title, or language.

..Truncated terms may be used with the ADJ operator.

..Search statements may be qualified after the fact to a certain position in a citation.

All of the fields on the Education Practice File can be accessed utilizing all of the above features.

SECTION I: USER PRODUCTS/USER SERVICES

Since User Products and Services are addressed in Product 1.7, this section will be concerned only with a description of the SDI (Selected Dissemination of Information) Product.

It has been proposed that two SDI products be published and disseminated during the six month pilot phase. It suggested that a separate SDI should be prepared for Consumer Education and for Citizenship Education. An example of a Consumer Education Product is "Competency Based Consumer Education Practices for Junior High and Middle Schools." A topic for Citizenship Education might be "Citizenship Education/Voter Education Practices at the Senior High Level."

A search of the EPF would then be conducted for practices satisfying the parameters suggested by the titles of the products. The search may be limited by date fields, geographic location etc.

After a relevance check of the search printout, a determination must be made on the number of practices to be highlighted in the publication. The choice may be difficult to make. It is, therefore, suggested that a set of limiting criteria be devised. The criteria may focus on the user population receiving the SDI practices available from EPF/EDRS, etc.

Each practice will need a description. Depending on the space available, the existing practice abstract may be used or a brief annotation may be created. The description should speak to the nature of the practice and its availability, the target population involved, the effectiveness of the practice, etc.

A brief synthesis or overview of the practices as a group should be prepared as an introduction to the SDI. The Best of ERIC format uses this approach very effectively. Additional information about the broader scope area could be included in this section, perhaps noting the breadth of the EPF.

In preparing the SDI for printing, a suggested format might be as follows:

- Synthesis/Introduction
- Titles and Annotations of Selected Practices
- A Cumulative Title Listing of all Consumer Education Practices
- General Information about the EPF with instructions on how to use the file and how to obtain the practices in the SDI
- Feedback Evaluation Form
- Practice Order Form

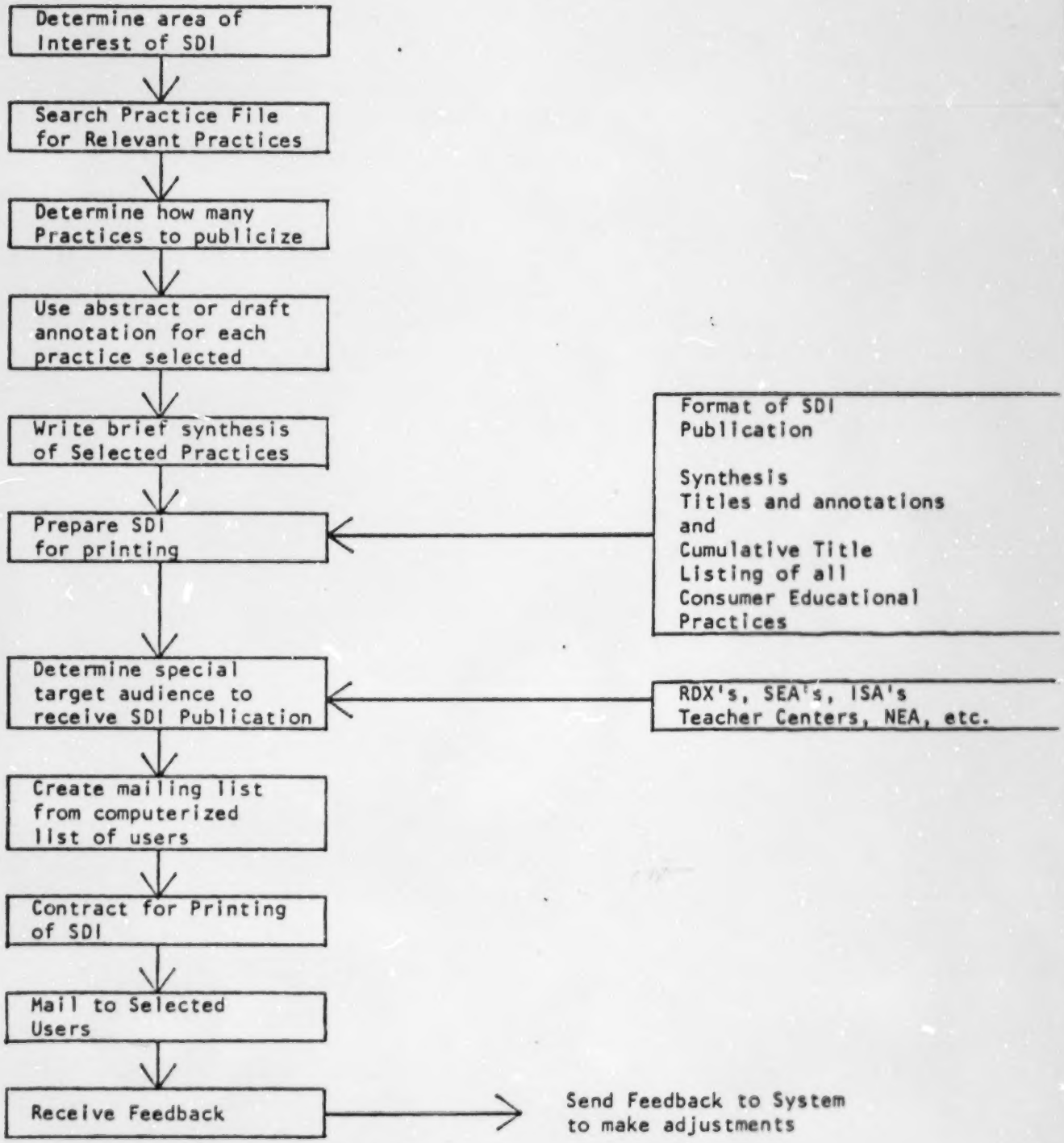
A task to be accomplished simultaneously with the SDI preparation is that of determining the audience or special target group to receive the publication. In the pilot phase, it is proposed that all primary sites receive the SDI. Special audiences may also be considered, particulary for their feedback.

An address list should then be compiled based on the audience decision. With the technology present at BRS, it is assumed that this mailing list is or will be placed on the computer.

A decision must be made concerning the printing of the SDI publication. This could be contracted or if there are facilities available may be printed inside.

The important issue once the SDI has been mailed out will be to determine how to handle feedback and requests of practices. Both the feedback and order forms should be devised so that they could serve two purposes. The first purpose would be to gather user responses; the second would be to process orders or compile data. Forms that can be used for multipurpose or that contain NCR paper so that one copy can be retained while another can be utilized in the process elsewhere are most helpful.

THE SDI PRODUCT


Determine area of Interest of SDI
Search Practice File for Relevant Practices
Determine how many Practices to publicize
Use abstract or draft annotation for each practice selected
Write brief synthesis of Selected Practices
Prepare SDI for printing
Format of SDI Publication
Synthesis
Titles and annotations
and
Cumulative Title Listing of all Consumer Educational Practices
Determine special target audience to receive SDI Publication
RDX's, SEA's, ISA's Teacher Centers, NEA, etc.
Create mailing list from computerized list of users
Contract for Printing of SDI
Mail to Selected Users
Receive Feedback
Send Feedback to System to make adjustments

"D A F"

Accession No.	Institution Code	State	Date Received	File No.

NATIONAL EDUCATIONAL PRACTICE FILE

DESCRIPTION ACQUISITION FORM

Title: What is the most common name of this practice? If this does not concisely describe the practice, add a descriptive sub-title.

Author/ Contact: Name, address, and phone number of person available to be contacted for additional information:

Institution: Name, address, and phone number of administering agency, responsible for practice.

Initiation Date: When was this practice begun?

Month/Year_____/_____

Fund Source: Is the source of funds for this practice state, federal, local, or private?

What legislation or grant provides the funding? e.g. ESEA Title I

Training: Is special training or technical assistance necessary in order to successfully adopt this practice?

Dissemination Capability:	Under what conditions can additional information and/or assistance be provided by you or your agency? For instance, are project reports available, or will contact person accept phone calls or interviews.
Reference:	Who suggested that this project be included in the database?
Evaluation:	Has the practice been evaluated? If so, what methods or tests were used? Was the evaluation aimed at the cognitive, effective, or psychomotor domains? If available, what was the outcome of the evaluation? Has the practice had state or national validation?
Audience Description:	What grade(s) does this practice serve? Circle all that apply. Pre-k, K, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16+ Is the practice designed for any specific ethnic, social, or economic group? What ability level is the practice intended for? e.g. average, below average, above average, gifted, educable mentally handicapped, etc.

)stract: This abstract will become part of the practice description little or no revision. Please limit your abstract to 250 words (20 lines of type) or less, and be sure that the following questions are answered:

1. What are the major purposes goals?

2. What approach or techniques are employed?

3. Are any special instructional materials used?

4. What appears to be the future of this practice?

APPENDIX D

RECOMMENDED PILOT TEST GUIDELINES

General guidelines for the Practice File as it develops in the future will include those discussed below. In some cases the guidelines include fairly ambitious departures from the ERIC process. In such cases we assume that further data on marginal benefits will be needed before implementing certain features. This set of guidelines is meant to be a point of reference in determining what should be done during the pilot test, and in subsequent developmental phases of the Practice File. While this document will not become a formal part of the contract it will affect the current practice file contract as "formal technical guidance" to the contractor (as provided for in the contract specifications.) Departures from this guidance must be fully justified and approved by NIE. (NOTE: The actual plan for Phase II, the pilot test, will include some sub-set activities implied by the guidelines recommended below. It will attempt to answer specific questions about what NIE should support after the pilot test is over).

FILE FEATURE	RECOMMENDED GUIDELINE
Scope of Content	Non-commercial, U.S. Curriculum materials (anything of a written or audiovisual* nature developed to meet the objectives of an educational program.) Examples: textbooks, films, other visual aids, records, games, and simulations's, teacher manuals (including goals and objectives, learning experiences, activities, and instructional aids.) Scope includes managerial practices (related directly to instructional problems), testing instruments for classroom settings and supporting documentation, needs assessment techniques related to instruction, community involvement programs, inservices education programs, individualized education programs and alternative education programs. Validated and non-validated practices will be eligible for inclusion. (Some are already covered in ERIC to some extent.) Pilot should examine overlap issue and make recommendations for avoiding duplicate effort in both ED and EP entries. (ED-EP Practice) Note: Advisers recommend further investigation into the following: commercial materials, English landguage materials from other countries. Policy, technical and logistical problems associated with these require special attention before NIE decides to include them in the scope. *Audio-visual items already included in the NICEM system are excluded, as are other non-print items already adequately covered by NICEM. All content coverage eligible for NIMIS II is also excluded.

Acquisitions

No guideline.

The contractor recommends that we consider adding a new ERIC Clearinghouse to handle special acquisitions problems. This clearinghouse might handle acquisitions arrangements not suited to subject area focus of other 16 Clearinghouses. But, it would not take over all acquisitions functions. Sacrificing experience, visibility and contacts already established in the current clearinghouses appears unrealistic from a technical and cost perspective.

The advisers feel that various issues need to be examined on the proposal to fund a new clearinghouse. No decision need be made on this feature, prior to our proceeding with the Phase II pilot test. Hense we recommend that the issues be examined in more depth. NIE should be in a position to make an informed decision by the Spring of 1979.

Selection

Evaluation techniques that have been applied to the practice will be identified according to type (e.g., case study, standardized test or peer review). But it will not be necessary for a practice to have been evaluated prior to inclusion in the file. Actual learner outcomes can be included as a distinct search field but they need not be entirely uniform and their inclusion is optional. Selection will not be limited to 'validated' practices.

Practices to be entered in the system must have source documentation which can be made readily available through the system (microfiche and/or hard copy) to users. 'Availability of source documentation' means that microfiche copies can be offered per the ERIC model.

Note: Advisers recommend that items without source documentation also be considered for inclusion, at least during the pilot test. The question of marginal utility should be examined: Will users find references to items where no microfiche is readily available useful? Does the utility justify the expense? Types of items most likely to fall into this category are teacher-developed materials where little or no public funding has been provided, curriculum material with non-print parts, and commercially offered materials.

Selection criteria will be patterned after those employed in the ERIC program (e.g., contribution to the field, legibility, likely utility to a national audience).

Contractor is advised to also consider a limiting rule such as "must be in use in more than one site."

Processing

Twelve special items are recommended for inclusion as searchable fields (e.g. type of evaluation conducted; institution that recommended inclusion of the item in the file, if any; location of a demonstration site (if applicable); information about availability of materials. These would supplement current ERIC fields.

Advisers generally found the fields acceptable, with several exceptions. Items P4 (location of practice), P8 (where practice is in use) and P13 (contact person) seem to relay duplicative information. Operational distinctions among these should be clarified. Advisers recommend that the question of marginal utility be examined during the pilot test. Is it worth the cost to add these items to the present ERIC format? An item of specific concern is P13, the contact person. This obviously will require periodic update and purge of a labor intensive nature. An alternative to consider is simply including the name of the contract person's organization. Many advisers felt this may be cheaper and easier to do but looses the benefits of naming a contact. Application of the "privacy act" provisions needs to be more closely examined with respect to this latter item, as well.

Note: One adviser suggested that it may be interesting to eventually include an item as to the quality of the evaluation "process" used. For example, the JDRP may be rated AAAA, whereas peer review limited to brief examination may get an A rating. This idea may have some appeal after we become more familiar with the selection and processing problems of the file, and with user reactions.

Another adviser expressed strong interest in referencing related documentation in the abstract on search fields. For example, JDRP - Approved items have extensive evaluation information to back them up. Users should have references to these. They should have document access either through RIE, or through the Practice File.

The external advisors suggest special attention be given to the notion of naming a contact person. This could be an invaluable aid to file users but an unbearable burden to the contact person. Further investigation is needed.

File Maintenance

Update and purge capability accomplished online through use of micro-computer. Purged materials not lost, rather stored on a "purge disc" in the central archieve for research purposes.

Note: Before full-scale implementation of this feature several questions must be answered: what types of "purge" and "update" operations are needed? How ofter? At what cost? What is the marginal benefit of performing these functions, as opposed to not doing them at all? Advisers feel that several points raised by the contractor make this feature worth serious consideration (e.g., fluid nature of some kinds of education practices, likely value of a "contract person" being named--if there is one willing to accept questions from file users, questionable value of keeping records describing "old, outdated" practices in the main file).

Vocabulary Development and Maintenance (includes issues related to controlled vocabulary and identification)

Use ERIC Thesaurus. Add new terms through the Vocabulary Improvement Committee. This will require some modification of the committee membership, and a modification of the "new term" procedures to speed the process.

Note: Questions to be answered include: should new EP (Education Practice) terms be merged with the main thesaurus, be a separate publication, or be a supplementary chapter to the main thesaurus?

The contractor suggests that special attention be given to developing terms to describe student characteristics which a given curriculum item is designed for. The Thesaurus Improvement Committee is currently refining "leveling" terms (e.g., grade level). Other types of terms may relate to specific socio-economic backgrounds of students that the material is targeted toward (e.g., male/female, minority, rural/urban), learning deficiencies (e.g., visual perception, motor perception, verbal expression). An example of such a classification system is the Annehurst Curriculum Classification System. The Thesaurus Improvement Committee and/or the contractor's pilot test work may include an examination of ERIC terms already covering these classes. If utility justifies the effort, it may be reasonable to consider special

instructions to ensure that terms describing the setting for which an input item is designed be included. (NOTE: This avenue may be to complex to handle in a band-aid manner. We may want to have a special project designed outside of our current activities, if this is the case.)

The assumption behind this notion is that the nature of user needs in the EP file is different from that of the ED file. EP users will want items useful for specific learning situations. ED users are searching for theoretical information that could be applicable to a wider range of practical situations, including learning situations plus others.

Search and Retrieval

The added fields recommended under the "processing" feature (above) will be searchable. Actual structure of entire record will be examined during the pilot test to determine the most effective set of searchable fields, and abstract fromat. The Practice File shall be searchable with ERIC much the same as ED and EJ files are concurrently searched now.

Note: Needs for new thesaurus terms and identifiers will also require further research.

User Products

Possibilities range from an Annual Catalog, only, through monthly SDI, user-targeted announcements. Mini-lists such as "Practices Worth Knowing About" (carrying some recognized endorsement/evaluation) may also be offered, in addition to an information analysis program. The appropriate types of user products, their frequency, and our relative investment in each depends on questions such as: what will the annual volume of new acquisitions be? Can effective user profiles be drawn up to guide a national SDI program? Is there a market for such a program?

Advisers suggest that various types of special micro-fiche sets also be considered.

The regular monthly index offered by ERIC (RIE) may not be appropriate for this file since: the volume may not warrant monthly updates; comprehensive updates of all new file entries may have less impact on school people than more selective catalogs. These considerations require closer examination.

The possible need for retrospective file purge and update may undermine utility of an archival, printed index.

A general publicity and system orientation program should be planned. It should include training for on-line users, guidelines for developing spin-off products from the main file for local use (e.g., SDI's), descriptive brochures and other hand-outs that intermediaries can use to announce the new file to their own users, at a minimum. An 800 phone number for practice file customers to ask questions about accessing the file would also be helpful in start-up period. In this way "bugs" could be quickly identified, answers provided in the quickest way, frustrations of learning a new service reduced.

The project external advisers suggest that special opportunities exist with the EP file for meeting local information needs with locally generated products.*NIE should encourage intermediaries to take advantage of these opportunities by providing training and guides for how to plan and develop their own products in a cost efficient manner. A mini grant program to encourage such development would be ideal.

The online user feedback capability will be seriously considered. Advisers feel this offers interesting benefits in terms of collecting "sensing" information on user needs, user reactions to file entries, and information on how the file is being used. Questions that need to be answered are: what relevant experience should we know about, through systems using this feature (Michigan system, EPIE, others?); what are specific costs of design, implementation, operation? What special management arrangements would be needed to ensure smooth operations and appropriate use of feedback, once entered?

Ordering capability for commercial and non-commercial products is appealing feature. Further research is needed to answer policy, cost, and technical questions.

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*Locally generated products may include pre-packaged searches, bibliographies, information analysis products, SDI services, for example.

APPENDIX F

THE UNIVERSITY AT ALBANY

April 27, 1978

Mr. Gregory Benson, Jr.
Vice President
Educational Information Services Development
Bibliographic Retrieval Services, Inc.
Building 702, Corporation Park
Scotia, New York 12302

Dear Mr. Benson:

Thank you for bringing to our attention The National Education Practice File Development Project, of which you are Project Director. Several of our faculty have expressed an interest in the possibility of being involved in the Project, particularly as it moves into Phase II.

As the need for personnel to work on particular tasks associated with the Project develops, we would certainly like to be of assistance by calling your needs to the attention of students, graduates residing in the area, and the faculty.

Your Project seems to be dealing with a national need in education, and we would like to be kept informed as it progresses.

Sincerely,

Robert S. Burgess
Professor & Acting Dean

RSB:c

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